This Issue Exceeds 130,000 Copies

THE JOURNAL

OF THE

American Medical Association

Subscription, $12.00 | Published Weekly at | *Single Copy, 35 Cents*
VOLUME 143, No. 3 | 535 North Dearborn Street, Chicago 10, Illinois | MAY 20, 1950

Original Articles

CHLORAMPHENICOL IN TREATMENT OF TYPHUS 217
Herbert L. Ley, Jr., M.D., Theodore E. Woodward, M.D., and Joseph E. Smadel, M.D., Washington, D. C.

VIRUS AND RICKETTSIAL DISEASES. 219
Albert Milzer, M.D., Chicago

ANGINA PECTORIS DURING DECUBITUS 225
Louis A. Soloff, M.D., Philadelphia

SODIUM PROPIONATE IN EYE INFECTIONS 226
Frederick H. Theodore, M.D., New York

CANCER DETECTION CENTERS. 230
Howard W. Jones, Jr., M.D., and W. Ross Cameron, M.D., Baltimore, Md.

DERMATITIS AND HEPATITIS DUE TO PHENOBARBITAL 232
David G. Welton, M.D., Charlotte, N. C.

Clinical Notes

INFECTIOUS MONONUCLEOSIS AND POLYNEURITIS 234
Nicholas E. Crostarosa, M.D., Bridgeport, Conn.

Council Reports

Council on Foods and Nutrition Pot-Soluble Vitamins A, E and K 236
Hugh R. Butt, M.D., Rochester, Minn.

Council on Pharmacy and Chemistry Warning on Cyplin Tablets 241

Editorials and Comments

San Francisco Meeting 242
The American Medical Directory 243
Volume III of Questions and Answers 244
Simplified Experimental Hypertension 244

The San Francisco Session

Official Call 245
San Francisco—1950 247
Registration 248
Transportation 248
Meeting Places 249
Committee on Arrangements 250
Entertainment 252
Women's Auxiliary 253
Golf Tournament 256
Television 257
Section Programs 259
The Scientific Exhibit 272
Motion Pictures 289
The Technical Exposition 291

Washington News

Medical Legislation 301

Organization Section

Official Notes 302
Coming Medical Meetings 303
State Legislation 303

Government Services

Navy 303
Veterans Administration 303
Miscellaneous 307

Regular Departments

Medical News 304
Marriages 307
Deaths 308
Foreign Letters
London 310
Italy 311
Turkey 311
Correspondence 313
Medicolegal Abstracts 313
Medical Examinations and Licensure 314
Current Medical Literature 315
Book Notices 323
Queries and Minor Notes 326
Toxics and Sedatives ..... Adv. Page 88
Books Received ..... Adv. Page 126

At San Francisco see 1950 *Current Therapy*

The first large printing of 1950 *Current Therapy* was completely sold out in less than three months. A reprint is now ready — we can ship your copy immediately.

Have you ever wondered why so many thousands of doctors in America (yes, and in foreign lands too) are using this great book every day — why they are calling it "the most useful medical book I've ever owned"? If you have wondered, then all you have to do is glance through its pages. You'll see right away that 1950 *Current Therapy* gives you the best treatment known to medical science *today* for every disease you're likely to encounter. You'll see that these treatments are not extracted from the literature — they are original contributions and represent the methods being used *today* by the men who describe them!

By 269 American Authorities selected by a Board of 12 Editorial Consultants. Edited by Howard F. Conn, M.D. 736 pages, 8" x 11". $10.00. *New.*

Other *Saunders Books* on next 4 pages

ISLE INST OF L A
LIBRARY
58 S HOPE ST
90 ANGELES 12 CALIF

SAUNDERS BOOKS

Going to the Convention?

BOOTHS
B-8, B-10

Mark on these pages the *Saunders Books* you're particularly interested in, then take the list to San Francisco and see each book!

INTERNAL MEDICINE

Hyman's Integrated Practice of Medicine—By HAROLD THOMAS HYMAN, M.D., New York City. 4 Volumes with a Separate Index Volume. 4336 pages, 6" x 9", 1184 illustrations, 305 in color. Per set: $60.00.

Cecil's Medicine—By *162 American Authorities.* Edited by RUSSELL L. CECIL, M.D., Cornell University Medical College. 1730 pages, 7" x 10", illustrated. $12.00. *Seventh Edition.*

Bockus' Gastro-enterology—By HENRY L. BOCKUS, M.D., University of Pennsylvania Graduate School of Medicine. Three Volumes and separate Index Volume, totalling 2998 pages. 6¼" x 9½", illustrated, some in colors. Per set: $45.00.

Bockus' Postgraduate Gastroenterology—Edited by HENRY L. BOCKUS, M.D., University of Pennsylvania Graduate School. 670 pages, 6½" x 9½", well illustrated. $10.00. *Postgraduate Medicine and Surgery Series.* ★ *New.*

McCombs' Internal Medicine—By ROBERT PRATT MCCOMBS, M.D., Tufts College Medical School. 741 pages, 6" x 9", 169 illustrations on 122 figures. $8.50. *Second Edition.*

A.M.A. Interns' Manual—By the Bureaus and Councils of the American Medical Association. 201 pages, 4¼" x 7". $2.25.

Goepp and Flippin's Medical State Board Questions and Answers—By R. MAX GOEPP, M.D., and HARRISON F. FLIPPIN, M.D., Graduate School of the University of Pennsylvania. 663 pages, 6" x 9¼". $7.00. ★ *New (8th) Edition.*

Duncan's Diseases of Metabolism—Edited by GARFIELD G. DUNCAN, M.D., Jefferson Medical College. 1045 pages, 6¼" x 9½", illustrated. $14.50. *Second Edition.*

Rubin's Diseases of the Chest—With Emphasis on X-ray Diagnosis. By ELI H. RUBIN, M.D., New York Medical College. 685 pages, 7" x 10", 760 illustrations on 355 figures, many in colors. $14.50.

Stieglitz' Geriatric Medicine—By *47 Authorities.* Edited by EDWARD J. STIEGLITZ, M.D., Suburban Hospital, Bethesda, Md. 773 pages, 6" x 9", illustrated. $12.00. *Second Edition.*

Mayo Clinic Diet Manual—*By the Committee on Dietetics of the Mayo Clinic.* 332 pages, 6" x 9". $4.00.

McLester's Nutrition and Diet in Health and Disease—By JAMES S. MCLESTER, M.D., University of Alabama. 800 pages, 6" x 9", $9.00. *Fifth Edition.*

Nesselrod's Proctology in General Practice—By J. PEERMAN NESSELRODE, M.Sc. (Med.), M.D., F.A.C.S., F.A.P.S., Northwestern University Medical School. 276 pages, 6" x 9½", illustrated. $6.00. ★ *New.*

Weiss & English on Psychosomatic Medicine—By EDWARD WEISS, M.D., and O. SPURGEON ENGLISH, M.D., Temple University Medical School. 803 pages, 6" x 9". $9.50. *Second Edition.*

Cooke's Allergy—By ROBERT A. COOKE, Roosevelt Hospital, New York City. 572 pages, 6" x 9", illustrated. $9.75.

Medical Clinics of North America—By *Leading Internists.* Issued serially every other month, one volume of about 300 pages, 6" x 9", illustrated. Per year (6 numbers): Cloth, $18.00; Paper, $15.00. Sold only by a year of six consecutive numbers. ★

★ **the red star means "new book" or "new edition"**

Convenient *Saunders* Order Form on Page 5 ➔

THE JOURNAL of the American Medical Association is published weekly by the American Medical Association. Subscription price, $12.00 a year, $1c a copy. Canadian $13.50. Foreign $14.00. Entered as second class matter June 29, 1883, at the Postoffice at Chicago, Ill., under act of March 3, 1879. Address all communications to American Medical Association, 535 N. Dearborn St., Chicago 10, Illinois.

TREATMENT

1950 Current Therapy—By 269 American Authorities selected by a Board of 12 Consultants. Edited by HOWARD F. CONN, M.D. 736 pages, 8" x 11". $10.00. *New.*

Cutting's Manual of Clinical Therapeutics—By WINDSOR C. CUTTING, M.D., Stanford University School of Medicine. 712 pages, 4¼" x 7¼", illustrated. $5.00. *Second Edition.*

Bastedo's Pharmacology, Therapeutics and Prescription Writing—By WALTER A. BASTEDO, M.D., Member of Revision Committee, U. S. Pharmacopoeia. 840 pages, 6" x 9", illustrated. $8.50. *Fifth Edition.*

CARDIOLOGY

Friedberg's Diseases of the Heart—By CHARLES K. FRIEDBERG, M.D., Mt. Sinai Hospital, New York City. 1081 pages, 7" x 10", illustrated. $11.50. *New.*

Dry's Manual of Cardiology—By THOMAS J. DRY, M.B., University of Minnesota (Mayo Foundation). 355 pages, 5¼" x 7¼", illustrated. $5.00. *New (2nd) Edition.*

Levine's Clinical Heart Disease—By SAMUEL A. LEVINE, M.D., Harvard Medical School. 462 pages, 6" x 9", illustrated. $7.50. *Third Edition.*

Levine and Harvey's Clinical Auscultation of the Heart—By SAMUEL A. LEVINE, M.D., and W. PROCTOR HARVEY, M.D., Harvard Medical School. 327 pages, 6" x 9", with 286 illustrations. $6.50.

Wolff's Electrocardiography—By LOUIS WOLFF, M.D., Harvard Medical School. 187 pages, 6" x 9", illustrated. $4.50. *New.*

Graybiel & White's Electrocardiography—By ASHTON GRAYBIEL, Captain, (M.C.), U.S.N.R.; and PAUL D. WHITE, M.D., Harvard Medical School. 458 pages, 11" x 8", illustrated. $8.50. *Second Edition.*

Allen, Barker & Hines' Peripheral Vascular Diseases—By EDGAR V. ALLEN, M.D.; NELSON W. BARKER, M.D., and EDGAR A. HINES JR., M.D., and Associates in the Mayo Clinic and Mayo Foundation. 871 pages, 6" x 9", with 386 illustrations, some in colors. $12.00.

CARDIOLOGY (Cont.)

Manual of the Cytologic Diagnosis of Cancer—By the Staff of the Vincent Memorial Laboratory (affiliated with the Massachusetts General Hospital). Published under the Sponsorship of the American Cancer Society. 229 pages, 6¼" x 9¾", with 517 illustrations on 153 figures, 30 in color. $6.50. *New.*

Custer's Atlas of Blood and Bone Marrow—By RICHARD PHILIP CUSTER, M.D., University of Pennsylvania School of Medicine. 321 pages, 7½" x 11½", with 288 illustrations, 42 in color. $15.00. *New.*

DIAGNOSIS

Todd & Sanford's Clinical Laboratory Diagnosis—By the Late JAMES CAMPBELL TODD, M.D.; and ARTHUR HAWLEY SANFORD, M.D., University of Minnesota. 954 pages, 6" x 9", with 769 illustrations on 419 figures, 33 in color. $7.50. *Eleventh Edition.*

Wells' Applied Clinical Pathology—By BENJAMIN B. WELLS, M.D., University of Arkansas School of Medicine. 397 pages, 6" x 9", illustrated. $6.00. *New.*

Sunderman & Boerner on Normal Clinical Values—By F. WILLIAM SUNDERMAN, M.D., U. S. Public Health Service; and the Late FREDERICK BOERNER, V.M.D. 845 pages, 6½" x 10", with 237 illustrations and 413 tables. $14.00. *New.*

Cantarow & Trumper's Clinical Biochemistry—By ABRAHAM CANTAROW, M.D., Jefferson Medical College; and MAX TRUMPER, PH.D., LT. COMDR., H (S), U.S.N.R. 642 pages, 6" x 9", illustrated. $8.00. *New (4th) Edition.*

Pullen's Medical Diagnosis—*By 23 Contributors.* Edited by ROSCOE L. PULLEN, A.B., M.D., Tulane University. 1123 pages, 6½" x 9½", with 601 illustrations, 48 in colors. *New (2nd) Edition—Just Ready!*

Sexual Behavior in the Human Male—By ALFRED C. KINSEY, WARDELL B. POMEROY and CLYDE E. MARTIN, Indiana University. 804 pages, 6" x 9", with 173 charts and 159 tables. $6.50.

SAUNDERS BOOKS

★ the red star means "new book" or "new edition"

More *Saunders Books* on pages 4 and 5 ➔ ➔

SAUNDERS BOOKS

Going to the Convention?

BOOTHS B-8, B-10

Mark on these pages the *Saunders Books* you're particularly interested in, then take the list to San Francisco and see each book!

GYNECOLOGY & OBSTETRICS

DeLee and Greenhill's Obstetrics—By Joseph B. DeLee, A.M., M.D., and J. P. Greenhill, M.D., Michael Reese Hospital, Chicago. 1011 pages, 7" x 10", 1108 illustrations on 860 figures, 211 in color. $12.00. *Ninth Edition.*

Snyder's Obstetric Analgesia and Anesthesia—By Franklin F. Snyder, M.D., Harvard Medical School. 401 pages 6" x 9", illustrated. $6.50.

★ **Curtis & Huffman's Gynecology**—By Arthur Hale Curtis, M.D., and John William Huffman, M.D., Northwestern University Medical School. 793 pages, 6½" x 9½", with 436 illustrations, 37 in color. *New (6th) Edition—Ready Soon.*

Novak's Gynecological and Obstetrical Pathology—By Emil Novak, M.D., the Johns Hopkins Medical School. 570 pages, 6¼" x 9¼", with 542 illustrations, many in color. $9.00. *Second Edition.*

Wharton's Gynecology & Female Urology—By Lawrence R. Wharton, M.D., the Johns Hopkins Medical School. 1027 pages, 6¼" x 9½", with 675 illustrations on 479 figures. $12.00. *Second Edition.*

★ **Janney's Medical Gynecology**—By James C. Janney, M.D., Boston University School of Medicine. 454 pages, 6" x 9" illustrated. $6.50. *New (2nd) Edition.*

★ **Williams' Endocrinology**—Edited by Robert H. Williams, M.D., University of Washington, with the collaboration of 11 authorities. 793 pages, 6" x 9", illustrated. $10.00. *New.*

PEDIATRICS

★ **Mitchell-Nelson's Pediatrics**—Edited by Waldo E. Nelson, M.D., Temple University School of Medicine, Philadelphia, with the collaboration of 63 Contributors. 1658 pages, 7" x 10", with 426 illustrations, 19 in color. $12.50. *New (5th) Edition.*

E. E. N. T.

Boies' Otolaryngology—By Lawrence R. Boies, M.D., University of Minnesota. 443 pages, 6" x 9", illustrated. $6.50. *New.*

Jackson's' Diseases of the Nose, Throat and Ear—*Including Bronchoscopy and Esophagoscopy.* Edited by Chevalier Jackson, M.D., and Chevalier L. Jackson, M.D., Temple University, Philadelphia. 844 pages, 7" x 10", with 934 illustrations on 581 figures, including 18 plates in colors. $12.00.

Berens on the Eye and Its Diseases—By Conrad Berens, M.D., Ophthalmological Foundation, Inc. 1092 pages, 7" x 10", with 436 illustrations, some in color. $16.00. *New (2nd) Edition.*

Gifford-Adler's Ophthalmology—By Sanford R. Gifford, M.D., and Francis H. Adler, M.D., University of Pennsylvania Medical School. 512 pages, 6" x 9", with 431 illustrations on 310 figures, 29 in colors. $6.00. *Fourth Edition.*

NERVOUS & MENTAL

Thorner's Psychiatry in General Practice—By Melvin W. Thorner, M.D., University of Pennsylvania Graduate School of Medicine. 659 pages, 6" x 9", illustrated. $8.00.

Noyes' Clinical Psychiatry—By Arthur P. Noyes, M.D., Supt., Norristown (Pa.) State Hospital. 525 pages, 6" x 9". $6.00. *Third Edition.*

Wechsler's Clinical Neurology—By Israel S. Wechsler, M.D., Columbia University, New York. 829 pages, 6" x 9", 159 illustrations, $8.50. *Sixth Edition.*

★ **Lichtenstein's Neuropathology**—By Ben W. Lichtenstein, M.D., University of Illinois, College of Medicine. 474 pages, 6¼" x 9¼", 282 illustrations. $9.50. *New.*

★ **the red star means "new book" or "new edition"**

← Other *Saunders Books* on Pages 2, 3 and 5 →

SURGERY

Christopher's General Surgery—By *198 American Authorities.* Edited by FREDERICK CHRISTOPHER, B.S., M.D., F.A.C.S., Northwestern University. 1550 pages, 7" x 10", with 1465 illustrations on 762 figures. $13.00. *New (5th) Edition.*

Christopher's Minor Surgery—By FREDERICK CHRISTOPHER, M.D., Northwestern University Medical School. 1058 pages, 6" x 9", with 937 illustrations on 595 figures. $12.00. *Sixth Edition.*

Orr's Operations of General Surgery—By THOMAS G. ORR, M.D., University of Kansas School of Medicine. 890 pages, 7" x 10¼", with 1700 illustrations on 721 figures. $13.50. *New (2nd) Edition.*

Meleney's Clinical Aspects and Treatment of Surgical Infections—By FRANK LAMONT MELENEY, M.D., College of Physicians and Surgeons, Columbia University. 824 pages, 6¼" x 9½", with 287 illustrations. $12.00.

Fine's Care of the Surgical Patient—By JACOB FINE, M.D., Harvard Medical School. 544 pages, 6" x 9", illustrated. $8.00.

Mason & Zintel's Preoperative and Postoperative Treatment—By ROBERT L. MASON, Lt. Col., M.C., A.U.S., Cushing General Hospital; and HAROLD A. ZINTEL, M.D., University of Pennsylvania School of Medicine. 584 pages, 6" x 9", illustrated. $9.00. *Second Edition.*

Boyd's Surgical Pathology—By WILLIAM BOYD, M.D., University of Toronto. 858 pages, 6" x 9½", with 530 illustrations, 22 in color. $12.00. *Sixth Edition.*

Our New Illustrated Catalogue is ready! Send for your copy!

Hauser's Diseases of the Foot—By EMIL D. W. HAUSER, M.D., Northwestern University Medical School. 415 pages, 6" x 9", with 195 illustrations. $7.00. *New (2nd) Edition.*

Jones and Shepard's Surgical Anatomy—By TOM JONES, University of Illinois Medical School; and W. C. SHEPARD, W. B. Saunders Company. 254 pages, profusely illustrated. 5½" x 7¾". $4.00

Callander's Surgical Anatomy—By the late C. LATIMER CALLANDER, M.D., University of California. 858 pages, 7½" x 10¼", with 1371 illustrations on 819 figures. $11.00. *Second Edition.*

Crile's Practical Aspects of Thyroid Disease—By GEORGE CRILE JR., M.D., Cleveland Clinic. 355 pages, 5½" x 7¾", with more than 100 illustrations. $6.00.

New 1950 Mayo Clinic Volume—*By the Staffs of the Mayo Clinic and the Mayo Foundation.* About 950 pages, 6" x 9", illustrated. *Now—Ready in June.*

The Surgical Clinics of North America—*By Leading Surgeons.* Issued serially, one volume of about 300 pages, 6" x 9"; illustrated, every other month. Per year (6 numbers): Cloth, $18.00; Paper, $15.00. Sold only by a year of six consecutive numbers.

DeGowin, Hardin & Alsever's Blood Transfusion—By ELMER L. DEGOWIN, M.D., and ROBERT C. HARDIN, M.D., State University of Iowa; and JOHN B. ALSEVER, M.D., U. S. Public Health Service. 587 pages, 6" x 9", illustrated. $9.00.

American Illustrated Medical Dictionary—1660 pages, 6" x 9", 130,000 definitions, with 880 illustrations, over 100 in colors, and 151 elaborate tables. Choice of Flexible or Stiff Binding. Plain, $8.00; Thumb-indexed, $8.50. *Twenty-first Edition.*

ORDER FORM

W. B. SAUNDERS COMPANY, West Washington Square, Philadelphia 5

Send the following books and charge to my account on your Easy Payment Plan:

.....

.....

Name.....

Address.....

Lea & Febiger Books

Visit Us At Booth B-12

Annual Session of the American Medical Association San Francisco, California June 26 to 30, 1950

New Books

EPSTEIN—REGIONAL DERMATOLOGIC DIAGNOSIS
By ERVIN EPSTEIN, M.D., Oakland (California) Veterans Administration Hospital; Diplomate, American Board of Dermatology and Syphilology.
New Book. *In Press.*

GREGG—CORONARY CIRCULATION in HEALTH and DISEASE
By DONALD E. GREGG, M.D., Medical Department, Field Research Laboratory, Fort Knox, Kentucky.
New Book. $4.50.

DAVIDOFF and EPSTEIN—The ABNORMAL PNEUMOENCEPHALOGRAM
By LEO M. DAVIDOFF, M.D., Beth Israel Hospital, New York; and BERNARD J. EPSTEIN, M.D., The Jewish Hospital of Brooklyn, N. Y.
New Book. $15.00.

COZEN—OFFICE ORTHOPEDICS
By LEWIS COZEN, M.D., F.A.C.S., College of Medical Evangelists, Los Angeles; Attending Orthopedic Staff, Los Angeles Orthopedic Hospital.
New Book. $5.00.

McMANUS—MEDICAL DISEASES of the KIDNEY
By J. F. A. McMANUS, M.D., The Medical College of Alabama, Birmingham.
New Book. $6.00.

PRATT—SURGICAL MANAGEMENT of VASCULAR DISEASES
By GERALD H. PRATT, M.D., F.A.C.S., St. Vincent's Hospital, New York.
New Book. $10.00.

HOLMES and SCHULZ—THERAPEUTIC RADIOLOGY
By GEORGE W. HOLMES, M.D., Waldo County General Hospital, Maine; and MILFORD D. SCHULZ, M.D., Massachusetts General Hospital, Boston.
New Book. *In Press.*

PULLEN—COMMUNICABLE DISEASES
By 53 Contributors. Edited by ROSCOE L. PULLEN, M.D., F.A.C.P., Tulane University, New Orleans.
New Book. *In Press.*

BURCH—PRIMER of VENOUS PRESSURE
By GEORGE E. BURCH, M.D., F.A.C.P., Tulane University.
New Book. $4.00.

KESSLER—The PRINCIPLES and PRACTICES of REHABILITATION
By HENRY H. KESSLER, M.D., F.A.C.S., Director, Kessler Institute of Rehabilitation, Newark, New Jersey.
New Book. $9.00.

SINGER—DIFFERENTIAL DIAGNOSIS of CHEST DISEASES
By JACOB JESSE SINGER, M.D., F.A.C.P., F.A.C.C.P., Director of Rose Lampert Graff Foundation, Beverly Hills, California.
New Book. $7.50.

PALMER—STOMACH DISEASE as DIAGNOSED by GASTROSCOPY
By EDDY D. PALMER, M.D., Major, Medical Corps, U. S. Army, formerly Walter Reed General Hospital.
New Book. $8.50.

New Editions

POHLE—CLINICAL RADIATION THERAPY
By ERNST A. POHLE, M.D., Ph.D., F.A.C.R., Chairman, Department of Radiology, University of Wisconsin.
New (2nd) Edition. $15.00.

BRIDGES' DIETETICS for the CLINICIAN
Edited by HARRY J. JOHNSON, M.D., New York Post-Graduate Medical School, Columbia University.
New (5th) Edition. $12.00.

WESSON—UROLOGIC ROENTGENOLOGY
By MILEY B. WESSON, M.D., Past President, American Urological Association.
New (3rd) Edition. $7.50.

KOVÁCS—ELECTROTHERAPY and LIGHT THERAPY
By RICHARD KOVÁCS, M.D., New York Polyclinic Medical School and Hospital.
New (6th) Edition. $10.00.

COMROE'S ARTHRITIS and ALLIED CONDITIONS
By BERNARD I. COMROE, M.D., F.A.C.P. Edited by JOSEPH L. HOLLANDER, M.D., F.A.C.P., Graduate School of Medicine; University of Pennsylvania, Philadelphia; and COLLABORATING EDITORS.
New (4th) Edition. $16.00.

GOLDBERGER—UNIPOLAR LEAD ELECTROCARDIOGRAPHY
By EMANUEL GOLDBERGER, M.D., Montefiore Hospital, New York.
New (2nd) Edition. $7.50.

TUFT—CLINICAL ALLERGY
By LOUIS TUFT, M.D., Temple University School of Medicine.
New (2nd) Edition. $12.00.

WIGGERS—PHYSIOLOGY in HEALTH and DISEASE
By CARL J. WIGGERS, M.D., Western Reserve University, Cleveland, Ohio.
New (5th) Edition. $10.00.

STARLING'S PRINCIPLES of HUMAN PHYSIOLOGY
Edited by C. LOVATT EVANS, D.Sc., F.R.C.P., F.R.S., University College, London.
New (10th) Edition. $10.00.

KUNTZ—TEXTBOOK of NEURO-ANATOMY
By ALBERT KUNTZ, M.D., St. Louis University School of Medicine.
New (5th) Edition. $8.00.

LEA & FEBIGER WASHINGTON SQUARE PHILADELPHIA 6 PA.

Use Coupon on next page ➤

Lea & Febiger Books

Visit Us At Booth B-12

Annual Session of the American Medical Association San Francisco, California June 26 to 30, 1950

Helpful In Your Daily Practice

LICHTMAN—DISEASES of the LIVER, GALLBLADDER and BILE DUCTS
By S. S. LICHTMAN, M.D., F.A.C.P., Cornell University Medical College.
Second Edition. $18.00.

QUIRING—COLLATERAL CIRCULATION
Anatomical Aspects. By DANIEL P. QUIRING, Ph.D., Cleveland Clinic Foundation and Western Reserve University.
$5.00.

HERBUT—SURGICAL PATHOLOGY
By PETER A. HERBUT, M.D., Jefferson Medical College, Philadelphia, Pa.
$12.00.

BURCH and WINSOR—PRIMER of ELECTROCARDIOGRAPHY
By GEORGE E. BURCH, M.D., Tulane University School of Medicine, and TRAVIS WINSOR, M.D., University of Southern California, Medical School.
Second Edition. $4.50.

BURCH and REASER—PRIMER of CARDIOLOGY
By GEORGE E. BURCH, M.D., and PAUL REASER, M.D., Tulane University School of Medicine.
$4.50.

LEWIN—The FOOT and ANKLE
By PHILIP LEWIN, M.D., Northwestern University Medical School.
Third Edition. $11.00.

KRAINES—THERAPY of the NEUROSES and PSYCHOSES
By SAMUEL HENRY KRAINES, M.D., University of Illinois College of Medicine, Chicago.
Third Edition. $6.50.

MacKEE and CIPOLLARO—X-RAYS and RADIUM in the TREATMENT of DISEASES of the SKIN
By GEORGE M. MacKEE, M.D., Columbia University; ANTHONY CIPOLLARO, M.D., New York Medical College, Flower and Fifth Avenue Hospitals.
Fourth Edition. $10.00.

HOLMES and ROBBINS—ROENTGEN INTERPRETATION
By GEORGE W. HOLMES, M.D., and LAURENCE L. ROBBINS, M.D., Harvard Medical School.
Seventh Edition. $7.00.

BOYD—TEXT-BOOK of PATHOLOGY
By WILLIAM BOYD, M.D., LL.D., University of Toronto, Canada.
Fifth Edition. $10.00.

HARTMAN and BROWNELL—The ADRENAL GLAND
By FRANK A. HARTMAN, Ph.D., and KATHARINE A. BROWNELL, Ph.D., Ohio State University.
New Book. $12.00.

SOFFER—DISEASES of the ADRENALS
By LOUIS J. SOFFER, M.D., Mount Sinai Hospital, New York, N. Y.
Second Edition. $6.50.

GRAY—ANATOMY of the HUMAN BODY
By HENRY GRAY, F.R.S. Edited by CHARLES MAYO GOSS, M.D., Louisiana State University, New Orleans.
Twenty-fifth Edition. $14.00.

ORMSBY and MONTGOMERY—DISEASES of the SKIN
By OLIVER S. ORMSBY, M.D., University of Illinois College of Medicine; and HAMILTON MONTGOMERY, M.D., Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester.
Seventh Edition. $18.00.

WINTROBE—CLINICAL HEMATOLOGY
By MAXWELL M. WINTROBE, M.D., School of Medicine, University of Utah.
Second Edition. $11.00.

HADEN—PRINCIPLES of HEMATOLOGY
By RUSSELL L. HADEN, M.D., Cleveland Clinic.
Third Edition. $5.00.

JOSLIN—TREATMENT of DIABETES MELLITUS
By ELLIOTT P. JOSLIN, M.D., Harvard Medical School, and ASSOCIATES.
Eighth Edition. $10.00.

PORTIS—DISEASES of the DIGESTIVE SYSTEM
Edited by SIDNEY A. PORTIS, M.D., F.A.C.P., University of Illinois Medical School.
Second Edition. $11.00.

DAVIS—PRINCIPLES of NEUROLOGICAL SURGERY
By LOYAL DAVIS, M.D., Northwestern University Medical School, Chicago.
Third Edition. $7.50.

SCHWARTZ, TULIPAN and PECK—OCCUPATIONAL DISEASES of the SKIN
By LOUIS SCHWARTZ, M.D., LOUIS TULIPAN, M.D., New York University College of Medicine; and SAMUEL M. PECK, M.D., College of Physicians and Surgeons, Columbia University, N. Y.
Second Edition. $12.50.

PARTIPILO—SURGICAL TECHNIQUE and PRINCIPLES of OPERATIVE SURGERY
By A. V. PARTIPILO, M.D., F.A.C.S., The Stritch School of Medicine, Loyola University, Chicago, Illinois.
Fourth Edition. $15.00.

COWAN—REFRACTION of the EYE
By ALFRED COWAN, M.D., Graduate School of Medicine, University of Pennsylvania, Philadelphia.
Third Edition. $5.50.

KRIMSKY—MANAGEMENT of BINOCULAR IMBALANCE
By EMANUEL KRIMSKY, M.D., New York Polyclinic Medical School and Hospital.
$12.50.

SPAETH—OPHTHALMIC SURGERY
By EDMUND B. SPAETH, M.D., F.A.C.S., Graduate School of Medicine, University of Pennsylvania, Philadelphia.
Fourth Edition. $15.00.

KATZ—ELECTROCARDIOGRAPHY
By LOUIS N. KATZ, M.D., University of Chicago, Chicago, Ill.
Second Edition. $12.00.

KATZ—EXERCISES in ELECTROCARDIOGRAPHIC INTERPRETATION
By LOUIS N. KATZ, M.D., University of Chicago, Chicago, Ill.
Second Edition. $6.00.

LEA & FEBIGER

WASHINGTON SQUARE PHILADELPHIA 6, PA.

Please send me the books circled above or listed in margin below:

☐ Check enclosed ☐ Bill me at 30 days ☐ Charge on your partial payment plan

DR. (PLEASE PRINT).....ADDRESS.....

CITY.....ZONE.....STATE.....

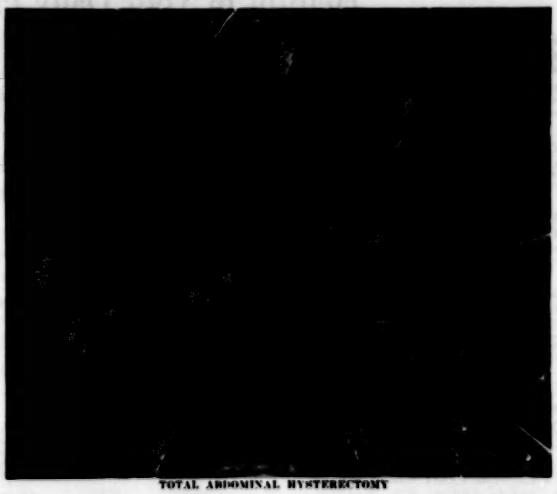
J.A.M.A. 5-20-50

OXFORD UNIVERSITY PRESS

HILL'S OPERATIVE SURGERY

By DR. FREDERICK C. HILL, the Creighton University. Foreword by DR. CHARLES MAYO

- Describes surgical lesions as seen at the operating table;
- Tells what to do about them and how to do it;
- Concise, clear description of operating technique;
- Superb illustrations and thorough index.



TOTAL ABDOMINAL HYSTERECTOMY

ANSWERS QUESTIONS LIKE THESE:

How is a temporary colostomy changed to a permanent colostomy?
Should the gallbladder be drained when the cystic duct is obstructed?
Should an apparently normal ovary be removed when there is a disgerminoma of the other?
How should suture-cutting scissors be held?
What should be done if in an operation for carcinoma of the stomach the patient is found to have a small ovarian tumor?
What is the proper technique for removing hemostats?
On which side of the table should the surgeon stand in doing a hysterectomy?
Where should the second assistant stand in a thyroidectomy?
What should be done if the portal vein is accidentally injured?
What is the significance of white bile in the common duct and in the gallbladder?

Contents Include: Preoperative Treatment—General Considerations—Sutures, Ligatures, and Instruments—Skin and Subcutaneous Tissue—Mouth, Tongue, and Salivary Glands—Neck—Mammary Gland—Pleura and Lung—Mediastinum and Contents—Abdominal Wall—Peritoneum, Retroperitoneal Tissue, and Adrenal Gland—Liver—Gallbladder and Bile Ducts—Pancreas—Spleen—Stomach—Duodenum—Jejunum and Ileum—Appendix—Colon—Rectum and Anus—Uterus, Fallopian Tube, and Ovary—Female External Genital Organs, Perineum, and Vagina—Kidney and Ureter—Bladder and Prostate—Male External Genital Organs—Bones and Joints—Blood Vessels—Extremities—Postoperative Treatment.

"Should prove of real value in supplying part of the essential background of a surgeon."—SURGERY, GYNECOLOGY AND OBSTETRICS.
"Should find popularity with every physician doing surgery."—NEBRASKA STATE MEDICAL JOURNAL.
"A good book for the medical student or surgical intern."—SOUTHERN SURGEON.
"Will certainly be many times of good use to its readers."—NORTHWEST MEDICINE.
"Should prove interesting to all surgeons."—NEW ENGLAND JOURNAL OF MEDICINE.
"Recommended for daily use."—REVIEW OF GASTROENTEROLOGY.
"Students will like this book."—JOURNAL OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.
"Every young man in surgery should peruse this practical book."—MD MAGAZINE.

712 *pages.* 255 *illustrations.* *Cloth,* $12.75

OXFORD UNIVERSITY PRESS 114 FIFTH AVENUE NEW YORK 11, N.Y.

OXFORD UNIVERSITY PRESS

At Booth A-8

OXFORD UNIVERSITY PRESS, now in its 482nd year of publishing, cordially invites you to call upon its books and its representatives. Current and recent new books and new editions include:

● **Florey, Sir Howard, et al: ANTIBIOTICS. A Survey of Penicillin, Streptomycin and Other Antimicrobial Substances from Fungi, Actinomycetes, Bacteria and Plants.** *Two volumes (not sold separately)*; 1790 *pages*; 266 *illustrations*; 242 *tables*; *appendix and tables of antibiotics*; 82-*page bibliography*; *author and subject indexes*. *The two-volume set*, $20.75

● **Fulton, John F.: PHYSIOLOGY OF THE NERVOUS SYSTEM.** 3*rd edition*; 677 *pages*; 140 *figures*; *bibliography and author index*; *subject index*. $10.00

● **Boyce, Frederick F.: ACUTE APPENDICITIS AND ITS COMPLICATIONS.** 509 *pages*; 81 *figures*; *bibliography*; *name and subject indexes*. $8.75

● **Thurber, Packard T. (Committee Chairman): EVALUATION OF INDUSTRIAL DISABILITY.** 96 *pages*; 80 *illustrations*. $4.00

● **Allen, Clifford: THE SEXUAL PERVERSIONS AND ABNORMALITIES, A Study in the Psychology of Paraphilia.** 2*nd edition*; 356 *pages*; 3 *illustrations*; *index*. $5.00

● **Movitt, Eli R.: DIGITALIS AND OTHER CARDIOTONIC DRUGS.** 2*nd edition*; 265 *pages*. 20 *figures*; 2 *color plates*; *bibliographies*; *author and subject indexes*. $5.75

● **Fulton, John F.: FUNCTIONAL LOCALIZATION IN RELATION TO FRONTAL LOBOTOMY.** 155 *pages*; 40 *illustrations*; *index*. $3.00

● **Brodal, Alf: NEUROLOGICAL ANATOMY IN RELATION TO CLINICAL MEDICINE.** 512 *pages*; 94 *figures*; *bibliography*; *index*. $9.25

● **Barach, Joseph H.: DIABETES AND ITS TREATMENT.** 496 *pages*; 71 *figures*; 317 *diets*; *index*. $10.00

● **Barach, Joseph H.: FOOD AND FACTS FOR THE DIABETIC.** 320 *pages*; 19 *figures*; 317 *diets*; *index*. $4.00

● **Meleney, Frank L.: TREATISE ON SURGICAL INFECTIONS.** 730 *pages*; 126 *illustrations*; *chapter bibliographies*; *index*. $12.00

● **Truex, Raymond C., and Kellner, Carl E.: DETAILED ATLAS OF THE HEAD AND NECK.** 176 *pages*; 149 *plates* (116 *in color*); *index*. $15.00

● **Thannhauser, Siegfried J.: LIPIDOSES, DISEASES OF THE CELLULAR LIPID METABOLISM.** 2*nd edition*; 600 *pages*; 223 *illustrations* (8 *in color*); *index*; *bibliography*. $12.00. Reprinted from Oxford Loose-Leaf Medicine.

● **Christian, Henry A.: NON-VALVULAR HEART DISEASE.** 80 *pages*; *bibliography*; *index*. $2.00. Reprinted from Oxford Loose-Leaf Medicine.

● **Keefer, Chester S., and Anderson, Donald G.: PENICILLIN AND STREPTOMYCIN IN THE TREATMENT OF INFECTIONS.** 118 *pages*; *bibliography*; *index*. $2.50. Reprinted from Oxford Loose-Leaf Medicine.

● **Kayne, Pagel and O'Shaughnessy: PULMONARY TUBERCULOSIS; PATHOLOGY, DIAGNOSIS, MANAGEMENT, AND PREVENTION.** 2*nd edition*; 758 *pages*; 268 *illustrations*; *bibliographies*; *index*. $14.00

● **Davidson, Maurice: PRACTICAL MANUAL OF DISEASES OF THE CHEST.** 3*rd edition*; 686 *pages*; 268 *illustrations*; *bibliography*; *index*. $16.50

● **Miles and Learmonth: OPERATIVE SURGERY.** 3*rd edition*; 572 *pages*; 235 *illustrations*; *index*. $6.50

OXFORD UNIVERSITY PRESS · 114 FIFTH AVENUE · NEW YORK 11, N.Y.

Mosby Books...

If you have a moment – before starting for the 1950 A. M. A. Meeting–look at the title pages of some of the books you are using. What year were they published?

Bear in mind that one of the most important tools of your practice is the literature you consult in treating your patients.

Stop by the Mosby Booths A-2 and A-4 at the Civic Auditorium in San Francisco and see our new releases. Mosby Representatives will be glad to give you information–and will assist you in any possible way to make the meeting a successful and pleasant one for you.

Published and Scheduled for Release in 1950

Dodson's UROLOGICAL SURGERY
Second Edition. 856 pages, 656 illustrations. $13.50

Cleckley's THE MASK OF SANITY
Second Edition. 576 pages. $6.50

Titus' Management of OBSTETRIC DIFFICULTIES
Fourth Edition. 1106 pages, 446 illustrations (9 in color). (In Preparation)

Meakin's PRACTICE OF MEDICINE
Fifth Edition. 1500 pages, 500 illustrations (50 in color). $13.50

Smith's CLINICAL ORTHOPTIC PROCEDURE
393 pages, illustrated. $8.00

Vaughan-Black's PRIMER OF ALLERGY
Third Edition. 175 pages, illustrated. $3.50

Allen's SYMPOSIUM OF SQUINT
(In Preparation)

Bray's Synopsis of CLINICAL LABORATORY METHODS
Fourth Edition. (In Preparation)

DeSanctis-Varga's PEDIATRIC EMERGENCIES
(In Preparation)

Adler's PHYSIOLOGY OF THE EYE
(In Preparation)

Gradwohl-Soto's CLINICAL TROPICAL MEDICINE
(In Preparation)

Herman's METHODS IN MEDICINE
Second Edition. (In Preparation)

Tassman's EYE MANIFESTATIONS OF INTERNAL DISEASES
Third Edition. (In Preparation)

Kuhn's EYES AND INDUSTRY
Second Edition. (In Preparation)

Stimson's OPHTHALMIC DISPENSING
(In Preparation)

Berman's PRINCIPLES OF SURGERY
Second Edition. (In Preparation)

Nicholson's STUDIES ON TUMOUR FORMATION
(In Preparation)

Evans' MEDICAL TREATMENT
(With Collaborators) (In Preparation)

Published by The **C. V. MOSBY COMPANY**
ST. LOUIS • SAN FRANCISCO • NEW YORK

ON DISPLAY AT A. M. A. MEETING
Mosby Booths A-2 and A-4 • June 26-30, 1950

1949 Releases

Pack's CANCER OF THE ESOPHAGUS AND GASTRIC CARDIA
192 pages, illustrated. $5.00

Foote's VARICOSE VEINS
226 pages, 181 illustrations. $8.00

Sutton-Sutton's Handbook of DISEASES OF THE SKIN
749 pages, 1057 illustrations. $12.50

Davison's Handbook of MATERIA MEDICA, TOXICOLOGY AND PHARMACOLOGY
Fourth Edition. 730 pages, 36 illustrations (4 in color). $8.50

Fleming's PENICILLIN—Its Practical Application
Second Edition. 471 pages, 63 illustrations (With Collaborators). $7.00

Evans' CARDIOGRAPHY
140 pages, 211 illustrations. $6.75

Kantor-Kasich's Handbook of DIGESTIVE DISEASES
Second Edition. 658 pages, 149 illustrations (2 in color). $11.00

Duke-Elder's TEXTBOOK OF OPHTHALMOLOGY—Volume IV (The Neurology of Vision. Motor and Optical Anomalies.)
1500 pages, 1081 illustrations (71 in color). $20.00

Traquair's Introduction to CLINICAL PERIMETRY
Sixth Edition. 332 pages, 257 illustrations (5 in color). $10.00

Doggart's OCULAR SIGNS IN SLIT-LAMP MICROSCOPY
112 pages, 93 illustrations (85 in color). $6.75

Scobee's A CHILD'S EYES
109 pages, illustrated. $2.00

Duke-Elder's THE PRACTICE OF REFRACTION
Fifth Edition. 317 pages, 216 illustrations. $6.25

Kramer's CLINICAL ORTHOPTICS—Diagnosis and Treatment
480 pages, 147 illustrations. $8.00

Ischlondsky's BRAIN AND BEHAVIOUR Induction as a Fundamental Mechanism of Neuro-Psychic Activity
184 pages, 46 illustrations. $7.00

Faulkner-Douglass' Essentials of OBSTETRICAL AND GYNECOLOGICAL PATHOLOGY
Second Edition. 400 pages, 300 illustrations (3 in color). $8.75

Titus' ATLAS OF OBSTETRIC TECHNIC
Second Edition. 197 pages, 203 illustrations. $7.50

Speed-Smith's OPERATIVE ORTHOPEDICS (Campbell's)
Second Edition. In Two Volumes. 1600 pages, 1141 illustrations (2 in color). $30.00

Hernaman-Johnson & Law's ANKYLOSING SPONDYLYTIS
200 pages, 41 illustrations. $6.50

Slocum's AN ATLAS OF AMPUTATIONS
562 pages, 584 illustrations. $20.00

Starr's DELAYED UNION IN FRACTURES OF THE LONG BONE
215 pages, 105 illustrations (3 in color). $9.00

Merrill's ATLAS OF ROENTGENOGRAPHIC POSITIONS
In Two Volumes. 708 pages, over 1500 illustrations. $30.00

Bertwistle's A DESCRIPTIVE ATLAS OF RADIOGRAPHS
622 pages, 980 illustrations. $16.00

Sach's THE DIAGNOSIS AND TREATMENT OF BRAIN TUMORS AND THE CARE OF THE NEUROSURGICAL PATIENT
Second Edition. 552 pages, 348 illustrations (10 in color). $15.00

Regan's DOCTOR AND PATIENT AND THE LAW
Second Edition. 545 pages. $10.00

Detailed literature on any of the books listed will be sent on request

The C. V. MOSBY Company
3207 Washington Blvd., St. Louis 3, Missouri • 720 Post Street, San Francisco 9, Calif.

SCIENTIFIC PUBLICATIONS

Current approaches to Diagnosis!

LIPPINCOTT SELECTED PROFESSIONAL BOOKS

BUCKSTEIN The Digestive Tract in Roentgenology

by Jacob Buckstein, M.D., Assistant Professor of Clinical Medicine, Cornell University Medical College.

The radiographic method in the study of the digestive tract—its value in diagnosis—is presented with a wealth of case histories. Functional and organic abnormalities are described and fully illustrated, and in every section the normal is outlined for comparison with the abnormal. "... this work probably rates as the best publication on radiology of the digestive tract in any language up to the present writing."—SURGERY, GYNECOLOGY & OBSTETRICS. 889 Pages. 1,030 Illustrations. $18.00

MACBRYDE Signs and Symptoms: Their Clinical Interpretation

by Cyril M. MacBryde, M.D., F.A.C.P., Assistant Professor of Clinical Medicine, Washington University School of Medicine.

A foundation for accurate diagnosis and adequate treatment of patients. The mechanism of each major sign and symptom is clarified by showing how anatomy, pathology, physiology, chemistry and psychology are related to its production, its manifestations and variations. "... altogether one of the most instructive books available for either specialists or general practitioners ... The illustrations are excellent and adequately supplement the text ..."—JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 439 Pages. 74 Illustrations, 12 in Color. $12.00

WHITE and GESCHICKTER Diagnosis in Daily Practice:

An Office Routine Based on the Incidence of Various Diseases

by Benjamin V. White, M.D., Assistant Clinical Professor of Medicine, Yale University School of Medicine; and Charles F. Geschickter, M.D., Professor of Pathology, Georgetown University Medical School.

A practical approach to diagnostic routine based on clinical experience and directed to use in general medicine. Physiologic pathology is integrated with graphic illustrations and ready reference tables leading to the differential diagnosis. "The authors can be commended for their practical and unique approach to an old and difficult problem."—AMERICAN JOURNAL OF THE MEDICAL SCIENCES. 693 Pages. 360 Illustrations. $15.00

FOOT Identification of Tumors

by N. Chandler Foot, M.D., Professor of Surgical Pathology, Cornell University Medical College.

A guide to the identity of tumors that as much as possible assigns each tumor to the system in which it occurs. The information includes: source, site, factors affecting incidence, gross appearance, microscopic appearance, differential diagnosis, and in the case of non-malignant groups—the malignant analogue. "... a brief and readily identified account of the majority of neoplasms that will be encountered by the clinician and pathologist ... physicians will find the book useful for orientation, review and quick reference."—JOURNAL OF BONE & JOINT SURGERY. 397 Pages. 241 Illus. $7.00

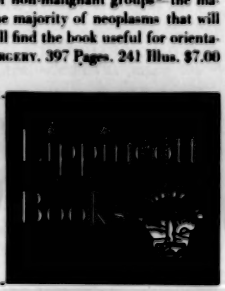
J. B. LIPPINCOTT COMPANY, East Washington Square, Philadelphia 5, Pa.

Please enter my order and send me:
- ☐ Buckstein, THE DIGESTIVE TRACT IN ROENTGENOLOGY, $18.00
- ☐ MacBryde, SIGNS AND SYMPTOMS, $12.00
- ☐ White & Geschickter, DIAGNOSIS IN DAILY PRACTICE, $15.00
- ☐ Foot, IDENTIFICATION OF TUMORS, $7.00

Name _____ ☐ Cash enclosed

Address _____ ☐ Charge my account

City, Zone, State _____



...proof of their need ...he books doctors read

...nds of physicians finding "Year Book" ...nuals and Monographs the practical ... problem," we present . . .

HOLBROOK & HILL'S MANUAL OF RHEUMATIC DISEASES

NEW!

Ready June 15—Everyday use of "miracle" drugs is still in the future. Meantime you can prevent crippling deformities; prescribe simple, effective measures to relieve suffering; make patients happier; do more in general for the arthritic and rheumatic than you may ever have considered possible. That's the kind of ... this manu... *Paul Holbrook, M.D., and ... M.D., Tucson, Arizona. 200 pages, 119 illustrations.*

SARNAT AND SCHOUR'S ORAL AND FACIAL CANCER

NEW!

Just Ready!—A simplified, intensely practical guide in early diagnosis and ... Every physician can profit from it. ... forward step in years in the liter... cancer of face, neck and oral cavity. *By Bernard Sarnat, M.D., and Isaac Schour, D.D.S., University of Illinois Colleges of Medicine and Dentistry. 304 pages, 236 illust. on 118 figs., 12 color illus. on 2 plates. $6.00.*

CHENEY'S MANAGEMENT OF GASTROINTESTINAL DISORDERS

NEW! Fifth Edition

Essentially *a symptom diagnosis plus treatment.* Designed to help the practitioner ... at the root of the patient's complaints, ... vide immediate symptomatic therapy, and ... a proved program of management. *By Dr. Cheney, M.D., Stanford University Medical School. 480 pages, illustrated. $6.75.*

HOLLENDER'S OFFICE TREATMENT OF NOSE, THROAT AND EAR

Ready in June—A time-tested General Practice Manual appears in a New 3rd Edition following complete revision. Newest therapeutic agents and ... office proce... ages provide, immediate, resourceful assistance. *By Abraham R. Hollender, M.D., University of Illinois College of Medicine. 620 pages, 140 illustrations.*

● *"Year Book" General Practice Manuals and Monographs are growing constantly in favor because they are the modern approach to the modern physician's reading problem. Inspect these professionally endorsed books at the San Francisco Annual Session.*

yb

Please send me the following books, postpaid, for 10 days' free examination.

- ☐ Holbrook and Hill's Manual of Rheumatic Diseases.....When ready
- ☐ Sarnat and Schour's Oral and Facial Cancer.....$6.00
- ☐ Cheney's Medical Management of Gastrointestinal Disorders.....$6.75
- ☐ Hollender's Office Treatment of Nose, Throat & Ear.....When ready

Name.....Street.....

City.....Zone.....State.....

J.A.M.A. 5-20-50

Distinguished HOEBER Books

See the complete List at San Francisco Visit Booth A5

BABKIN'S Secretory Mechanism of the Digestive Glands

By B. P. Babkin, M.D. *Research Professor of Physiology, McGill Univ., Montreal;* 1056 pp., 233 illus., New 2nd edition, $20.00

BARROW'S Varicose Veins

By David W. Barrow, M.D., Foreword by Arthur W. Allen, M.D., 169 pp., 78 illus., 4 in full color, $5.00

BERLINER'S Biomicroscopy of the Eye

By Milton L. Berliner, M.D. *Cornell Univ. Med. Coll.;* 1540 pp., 1233 illus., 503 in full color, Two-Volume Set, $50.00 Volume II alone, $35.00

COLEY'S Neoplasms of Bone and Related Conditions

By Bradley L. Coley, M.D., *Attending Surgeon in Charge, Bone Tumor Dep't, Memorial Hospital, N. Y.* 779 pp., 622 illus., $17.50

DeJONG'S The Neurologic Examination

By Russell N. DeJong, M.D., *Professor of Neurology, Univ. of Michigan Medical School;* approx. 800 pp., In Press

EVANS' Modern Practice in Anaesthesia

Edited by Francis T. Evans; 24 contributors; 628 pp., 247 illus., $12.50

FERGUSON'S Roentgen Diagnosis of the Extremities and Spine

By Albert B. Ferguson, M.D., *Assoc. Prof. of Orthopedic Surgery, Boston Univ.;* 550 pp., 634 x-ray plates, 2nd Edition, $15.00

FOWLER'S CLINICAL Hematology

By Willis M. Fowler, M.D., *Professor of Internal Med., Univ. of Iowa Med. Sch.;* 549 pp., 110 illus., 8 full color plates, 2nd Edition, $8.50

GESELL, ILG & BULLIS' Vision Its Development in Infant and Child

By Arnold Gesell, M.D., and Associates, *Yale Clinic of Child Development,* 352 pp., 179 illus., $6.50

HAMILTON & HARDY'S Industrial Toxicology

By Alice Hamilton, M.D., and Harriet L. Hardy, M.D., *Harvard School of Public Health,* 582 pp., 2nd Edition, $6.50

HARRIS' Brucellosis (Clinical and Subclinical)

By Harold J. Harris, M.D., 635 pp., 111 illus., 12 in full color, New 2nd Edition, $10.00

HARRIS' Modern Trends in Psychological Medicine

Edited by Noel G. Harris, M.D., 18 International Contributors, 462 pp., 35 illus., $10.00

JOLLIFFE, TISDALL & CANNON'S Clinical Nutrition

Edited by Norman Jolliffe, M.D., F. F. Tisdall, M.D. and Paul R. Cannon, M.D., 36 Contributors, 925 pp., 61 color plates, $12.00

KAPLAN'S Clinical Radiation Therapy

By Ira I. Kaplan, M.D., *Clin. Prof. of Radiology, N. Y. U. Med. Coll.;* 859 pp., 614 illus., 2nd Edition, $15.00

V 1 195

Distinguished **HOEBER** *Books*

Check these Hoeber Titles Today

McCLUNG'S Handbook of Microscopical Technique

Edited by RUTH McCLUNG JONES, Ph.D., approx. 800 pp., illus., New 3rd Edition In Press

RITVO'S Roentgen Diagnosis of Diseases of the Skull

By MAX RITVO, M.D., *Asst. Prof. of Radiology, Harvard Univ. Med. Sch.*; 428 pp., 466 illus., $16.00

METTLER'S Selective Partial Ablation of the Frontal Cortex

By the COLUMBIA-GREYSTONE ASSOCIATES, FRED A. METTLER, M.D. Editor; 517 pp., 123 illus., $10.00

SCHWEDEL'S Clinical Roentgenology of the Heart

By JOHN B. SCHWEDEL, M.D., *Roentgenology Dep't., Montefiore Hosp., N. Y.*, 391 pp., 749 illus., $12.50

NIEBURGS' Hormones in Clinical Practice

By N. E. NIEBURGS, M.D., *Dep't. of Endocrinology, Univ. of Georgia*, 388 pp., 57 illus., $5.50

SPERRY'S The Ethical Basis of Medical Practice

By WILLARD L. SPERRY, *Dean of the Harvard Divinity School*: Foreword by J. HOWARD MEANS, M.D., 185 pp., $2.50

REYNOLDS' Physiology of the Uterus

By S. R. M. REYNOLDS, Ph.D., *Physiologist, Dep't. of Embryology, Carnegie Institute; Lecturer in Obstetrics, Johns Hopkins Univ. School of Med.*; 609 pp., 60 illus., New 2nd Edition $12.50

VORWALD'S Pneumoconiosis

Edited by ARTHUR J. VORWALD, M.D., *Director of Research, The Trudeau Foundation*; approx. 650 pp., 198 illus., 5 color plates, In Press

ORDER TODAY

PAUL B. HOEBER, INC. JAMA 5/20/50
Medical Book Department of Harper & Brothers
49 East 33rd Street, New York 16, N. Y.

Send Me The Following Books ON APPROVAL:

_____

_____

_____

☐ Charge My Account ☐ Check Enclosed (Return Privileges, of course)

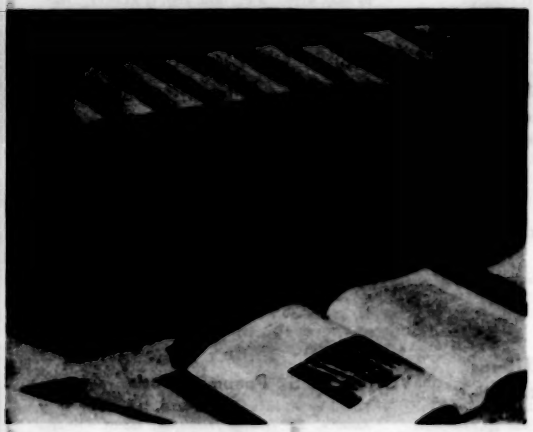
Name _____

Address _____ Zone _____ State _____

TICE'S PRACTICE OF MEDICINE

In Ten Loose-Leaf Volumes

TICE'S PRACTICE OF MEDICINE is an authoritative reference on Internal Medicine wherein the latest clinically proven material is arranged in the same sequence as a physician analyzes his patients. Special stress is placed on treatment, but the aim of the authors and editors is to furnish the reader with that which is usable in everyday practice and not to include every new kind of therapeutic doctrine.



More Than 1000 Pages Devoted to Therapy

When new treatments or new diagnostic procedures are accepted, they are included in the revision sheets for TICE'S PRACTICE OF MEDICINE. You discard the old and insert the new.

If you are a busy practitioner who would utilize to the fullest extent all the forces and resources of modern medicine, investigate TICE'S PRACTICE OF MEDICINE. It stands ready to serve you as part of the Prior Three-Fold Medical Service.

Discard the Outmoded ...Insert Latest Proven Treatments, Diagnoses

TICE subscribers have recently received a large number of new chapters, many of which have been characterized as medical masterpieces. These new chapters are devoted to the following subjects: Vitamin A, Acute Lobar Pneumonia, Diseases of the Lungs, Rocky Mountain Spotted Fever, Diseases of the Bronchi, Septic Arthritis, Tuberculosis of the Intestines, Cerebrospinal Fluid, Syphilis of the Nervous System and Diseases of the Sympathetic Nervous System.

INTERNATIONAL DIGESTS

Current literature is sent monthly to our subscribers briefed to time-saving lengths in the INTERNATIONAL MEDICAL DIGEST. These Digests enable the busy physician to keep his fingers on the pulse of what is happening in medicine. They are cumulatively indexed and filed in binders and form an integral part of the service rendered in connection with TICE'S PRACTICE OF MEDICINE.

CONSULTING SERVICE

Supplementing these two services is the CONSULTING BUREAU, which upon request supplies literature on atypical cases—data for papers for medical meetings—medical-legal material—and articles ordinarily not covered in medical books or too recent and untried for inclusion in standard texts.

V 1
195

Lewis-Walters'
PRACTICE OF SURGERY

In 12 Loose-Leaf Volumes including the Three-Fold Service

A veritable library of monographs on general surgery and the specialties written by 150 outstanding authorities. In logical sequence each condition is considered, first according to Clinical History, then Pathologic Findings, Diagnosis, Conservative Treatment, Preoperative Treatment, Operative Technic and Postoperative Management. Thus LEWIS-WALTERS' SURGERY is constructed for the busy surgeon who wants clinical assistance with the minimum expenditure of time.

Operative technic is shown in most careful detail. The standard operative procedures for each condition are chosen for presentation. Half-tone illustrations and line drawings are profusely used, so grouped as to give clear and easy continuity from one operative step to the next.

Davis'
GYNECOLOGY and OBSTETRICS

In Three Loose-Leaf Volumes and Index

Visualization is the paramount and distinctive feature of DAVIS' GYNECOLOGY and OBSTETRICS. There are approximately 2,500 illustrations in the 3,500 pages of text in the set. DAVIS, in reality, is an atlas of gynecology and obstetrics with the text condensed to the minimum, yet always adequate for clear understanding. It is a work that combines the clarity of words with the vividness of pictures. DAVIS contains a concise but comprehensive clinical presentation of every gynecologic and obstetric subject. Medical methods are stressed throughout this work. There are an unusually large number of chapters that are consulted daily by the physician in his office practice.

Brennemann-McQuarrie PRACTICE OF PEDIATRICS

In Four Loose-Leaf Volumes including the Three-Fold Service

This epochal work is one of the most popular reference sets ever published. Briefly, the reason for its unparalleled popularity is because it never fails to yield accurate, up-to-date information when needed on any problem from birth through adolescence.

It is luminous without being voluminous. It contains 5,000 pages, yet the chapters average only 27 pages of crystal-clear information. While this great work is considered essential by the pediatricians, the sale to the general practitioners outnumbers the sale to the specialists four to one. The reason for this is apparent when you consider a report made by the Academy of Pediatrics in the J.A.M.A. concerning a nationwide study of child health service . . . "The survey reports that three-fourths of the private care of children of the nation is given by general practitioners."

SEND THIS COUPON
FOR FURTHER INFORMATION

W. F. PRIOR COMPANY, INC., Hagerstown, Maryland

Please send me further information about

☐ DAVIS ☐ TICE ☐ LEWIS-WALTERS ☐ BRENNEMANN-McQUARRIE

NAME.....ADDRESS.....

.....

1950 New Books

BEST AND TAYLOR: Physiological Basis of Medical Practice *5th edition*

A completely revised and greatly enlarged new edition of this justly famous textbook.
1330 pp., 601 figs., $11.00

WARD AND HENDRICK: Tumors of the Head and Neck

Emphasis on early diagnosis and proper choice of treatment for all types of tumors, both benign and malignant.
845 pp., 630 figs., 9 color plates, $15.00

BARSKY: Principles and Practice of Plastic Surgery

Modern plastic surgery thoroughly covered in an authoritative discussion of basic principles.
510 pp., 1029 figs., $10.00

COLBY: Essential Urology

The basic principles of the specialty in a practical text for practitioners and students. *589 pp., 342 figs., $8.00*

OTHER RECENT BOOKS FOR THE

AIRD: Companion in Surgical Studies. 1068 *pp.*, $12.00

BAILEY: Physical Signs in Clinical Surgery, 11th ed. 438 *pp.*, 657 *figs.*, $7.00

BROCK: Injuries of the Brain and Spinal Cord and Their Coverings, 3rd ed. 794 *pp.*, 125 *figs.*, $10.00

COBURN: Epidemiology of Hemolytic Streptococcus. 238 *pp.*, 32 *figs*, $4.00

DICKINSON: Atlas of Human Sex Anatomy, 2nd ed. 158 *pp.*, 175 *figs.*, $10 00

EDDY: Vitaminology. 370 *pp.*, 37 *figs.*, $6.00

FAIRHALL: Industrial Toxicology. 494 *pp.*, $6.00

GILL: Author-Publisher-Printer Complex, 2nd ed. 153 *pp.*, 9 *figs.*, $1.50

HEARDMAN: Way to Natural Childbirth. 132 *pp.*, 66 *figs.*, $2.50

KAZANJIAN and CONVERSE: Surgical Treatment of Facial Injuries. 588 *pp.*, 746 *figs.*, $10.00

KENDALL: Muscles, Testing and Function. 289 *pp.*, 162 *figs.*, $7.50

KRANTZ and CARR: Pharmacologic Principles of Medical Practice. 995 *pp.*, 94 *figs.*, 14 *portraits*, $10.00

MARKOWITZ: Experimental Surgery, 2nd ed 569 *pp.*, 330 *figs.*, $7.00

Visit the Williams & Wilkins Company booth,

B-4, at the Convention in San Francisco, June 26-30, and get your copy of the special 1950 Silver Anniversary catalog.

and New Editions

DANIEL: Amputation Prosthetic Service

The first complete text covering all the problems of the amputee patient. *347 pp., 151 figs., $7.00*

KERR AND MOIR: Operative Obstetrics *5th edition*

The most complete discussion of obstetrical complications in the English language. *956 pp., 390 figs., $12.00*

WORTIS: Soviet Psychiatry

Modern Russian psychiatric practice with historical background and source material. *375 pp., 1 fig., $5.00*

COLLINS: Pathology of Articular and Spinal Diseases

An up to date account of the morbid anatomy of the joints and spine for pathologists, orthopedists, rheumatologists and radiologists. *339 pp., 139 figs., $7.00*

SPECIALIST AND PRACTITIONER

MAY'S Manual of Diseases of the Eye. 20th ed. *520 pp., 378 figs., 32 plates,* $5.00

MEAKINS: Symptoms in Diagnosis, 2nd ed. *557 pp., 112 figs.,* $7.50

MULLIGAN: Neoplasms of the Dog. *146 pp., 59 plates,* $4.00

OCKERBLAD: Handbook of Surgical Urology. *196 pp., 52 figs.,* $3.00

RAPER and THOM: Manual of the Penicillin. *884 pp., 172 figs., 10 plates,* $12.00

REHFUSS, ALBRECHT and PRICE: Practical Therapeutics. *840 pp., 7 figs., 70 plates,* $15.00

SKINNER: Origin of Medical Terms. *384 pp.* $7.00

STEDMAN'S Medical Dictionary, 17th ed. *1405 pp., illustrated,* $8.50

TURELL: Treatment in Proctology. *258 pp., 239 figs., 14 color plates,* $7.00

VEITH: Yellow Emperor's Classic of Internal Medicine. *269 pp., 24 figs.,* $5.00

WAKSMAN: Streptomycin. *627 pp., 95 figs.,* $10.00

WATSON and TOLAN: Hearing Tests and Hearing Instruments. *607 pp., 239 figs.,* $7.00

ZACKS: Photoradiography in Search of Tuberculosis. *290 pp., 274 figs.,* $5.00

THE WILLIAMS & WILKINS COMPANY MT. ROYAL & GUILFORD AVES. BALTIMORE 2, MARYLAND

25th Anniversary Year, 1925-1950

Please send.....

.....

.....

.....

Name.....

Address.....

.....

Books published under the auspices of the University of Chicago Committee on Publications in Biology and Medicine

PATHOLOGY in GENERAL SURGERY

By PAUL W. SCHAFER, M. D. This book, with 368 magnificent color plates, represents a new approach to the study of pathology as it relates to surgery. Written by a surgeon with special training in pathology, it deals mainly with the conditions which concern the general surgeon. Most of the common and many of the rare conditions encountered in general and thoracic surgery, as well as important complications of surgical treatment, are discussed. Descriptions and illustrations have been correlated with considerations of pathogenesis, morphology, clinical behavior, and, in some areas, therapy.

"Dr. Schafer here brings to the surgeon the correlation of symptoms and pathological processes, made particularly helpful by reproduction in color of gross and histologic specimens." —PAUL R. CANNON, M.D., *Professor and Chairman of the Department of Pathology, the University of Chicago.*

"A text on surgical pathology written by a surgeon with particular reference to the need of surgeons. The illustrations are superb. This book should find a useful place in every surgeon's library."—OWEN H. WANGENSTEEN, M.D., *Professor and Chairman of the Department of Surgery, the University of Minnesota Medical School.* *7¼" x 10½", 493 illustrations, index, $17.50*

GASTROSCOPY: THE ENDOSCOPIC STUDY OF GASTRIC PATHOLOGY (Revised 1958)

By RUDOLF SCHINDLER, M.D. A completely revised and enlarged edition of a work of acknowledged excellence. Especially important is the new chapter on gastric cancer. 10 pages of color plates, 366 diagrams and photographs.

6¾" x 9½", index, $20.00

HEMORRHAGIC DISORDERS: A GUIDE TO DIAGNOSIS AND TREATMENT

By PAUL M. AGGELER, M.D. & S. P. LUCIA, M.D. A concise handbook in a form readily usable by the practicing physician or laboratory technician. Based on original study of the bleeding tendency in over 500 patients suffering from various diseases.

8½" x 11", color illustrations, $10.00

MORE ABOUT PSYCHIATRY

By CARL BINGER, M.D. THE DOCTOR'S DILEMMA, WHY THE PROFESSOR FELL OUT OF BED, MEDICAL INFORMATION AND MISINFORMATION, and twelve other essays. "Written with wide learning, humor and clarity."—*N. Y. Times.* *$4.00*

PAVLOV, A BIOGRAPHY

By B. P. BABKIN, M.D. "It will stand as a great biography of a great man . . . one of the most fascinating figures in the whole history of science."—*N. Y. Times.* *Illustrated, $6.00*

THE UNIVERSITY OF CHICAGO PRESS
5750 Ellis Avenue, Chicago 37, Illinois

AT THE BLAKISTON BOOTH IN SAN FRANCISCO

HARRISON:

Principles of Internal Medicine

▼ ▼ ▼

ANOTHER BLAKISTON ACHIEVEMENT

ANNOUNCING THE NEWEST BOOK OF INTERNAL MEDICINE

More and more doctors are finding that the Blakiston colophon on a medical book, text or reference means "Authority which imparts confidence."

Principles of Internal Medicine is the newest addition to the Blakiston line of outstanding medical books.[1] For the practitioner and the teacher, this is the first textbook to thoroughly integrate the preclinical sciences with clinical medicine. It is written by a distinguished staff of five editors: T. R. Harrison, Professor and Chairman of Department of Internal Medicine, Southwestern Medical College; M. M. Wintrobe, Professor and Head, Department of Medicine, University of Utah College of Medicine; Paul B. Beeson, Professor and Chairman of the Department of Medicine, Emory University School of Medicine; William H. Resnik, practicing physician, Stamford, Conn.; and George W. Thorn, Hersey Professor of the Theory and Practice of Physic, Harvard Medical School, and 53 authorities.

Arranged in seven parts, the first five—Cardinal Manifestations of Disease, Physiologic Considerations, Reactions to Stress and to Antigenic Substances, Metabolic and Endocrine Disorders, and Disorders Due to Chemical and Physical Agents—cover the functional approach. The last two deal with specific diseases: Diseases Due to Biologic Agents, and Diseases of Organ Systems.

To you who practice or teach medicine as an art and science, who try to integrate the pre-clinical sciences with clinical medicine . . . this new book will be of great interest. Why not send for your copy now!

245 Illustrations, $12.00

[1]Blakiston's New Gould Medical Dictionary—the first new medical dictionary in 38 years. 30,000 sold since publication. (Aug., 1949)

ACTH—The Proceedings of the First Clinical ACTH Conference—the basic information on its clinical use. (*Time Magazine*, April 10)

This coupon will bring you any of these Blakiston firsts.

The Blakiston Company

THE BLAKISTON COMPANY, 1012 Walnut Street, Philadelphia 5, Pa.

Please send the items checked; my check is enclosed ☐; charge my account ☐. It is understood that you will credit my account in full for any books that I wish to return within 10 days.

☐ Harrison's Principles of Internal Medicine—$12.00 ☐ Blakiston's New Gould Medical Dictionary ☐ school edition—$8.50 ☐ professional edition—$10.75 ☐ deluxe edition—$13.50
☐ The Proceedings of the First Clinical ACTH Conference—$5.50

NAME _____ ADDRESS _____

CITY _____ ZONE _____ STATE _____

JAMA 5-20-50

DAVIS MEDICAL BOOKS

At Booth C-I—San Francisco

CLINICAL NEUROLOGY
Bernard J. Alpers. $9.50

ARTHRITIS AND RELATED CONDITIONS
Theodore F. Bach and 10 Contributors. $6.50

THE GALLBLADDER AND ALLIED STRUCTURES
Moses Behrend. $7.00

CLINICAL TUBERCULOSIS (Two Volumes)
Benjamin Goldberg and 33 Contributors. $18.00

THE ADRENAL GLANDS
Max A. Goldzieher. $9.00

INTERPRETATION OF LABORATORY TESTS
Raymond H. Goodale. $6.50

MEDICINE THROUGHOUT ANTIQUITY
Benjamin Lee Gordon. $6.00

THE ROMANCE OF MEDICINE
Benjamin Lee Gordon. $5.00

DERMATOLOGY
Sigmund S. Greenbaum and 6 Contributors. $12.00

DISEASES OF THE CHEST
Archibald R. Judd. $9.00

PAIN SYNDROMES
Bernard Judovich and Wm. Bates. $6.00

PHYSICAL DIAGNOSIS
Rudolph H. Kampmeier.

PERIPHERAL VASCULAR DISEASES
David W. Kramer. $8.00

DISEASES OF THE EAR, NOSE AND THROAT
Francis L. Lederer. $10.00

THERAPEUTICS OF INFANCY AND CHILDHOOD
H. R. Litchfield and L. H. Dembo and 126 Contributors (Four Volumes). $45.00

MEDICAL AND PHYSICAL DIAGNOSIS
Samuel A. Loewenberg. $12.00

CLINICAL CYSTOSCOPY (Two Volumes)
Lowrain E. McCrea. $28.00

CLINICAL UROLOGY
Lowrain E. McCrea. $6.50

RHINOPLASTY AND RESTORATION OF FACIAL CONTOUR
Jacques W. Maliniac. $7.50

REPARATIVE AND RECONSTRUCTIVE SURGERY
Hans May. $15.00

ACUTE MEDICAL DISORDERS
Francis D. Murphy. $7.50

THE CYCLOPEDIA OF MEDICINE, SURGERY, SPECIALTIES
$165.00

CLINICAL RADIOLOGY (Two Volumes)
George U. Pillmore and 59 Contributors. $45.00

TREATMENT IN GENERAL MEDICINE (Four Volumes)
Hobart A. Reimann and 37 Contributors. $50.00

SIGNS, REFLEXES AND SYNDROMES
W. E. Robertson and Harold F. Robertson. $4.50

PROCTOLOGY FOR THE GENERAL PRACTITIONER
Frederick C. Smith. $6.00

CARDIOVASCULAR DISEASE (Two Volumes)
Wm. D. Stroud and 64 Contributors. $25.00

BLOOD AND PLASMA TRANSFUSIONS
Max M. Strumia. $7.50

CYCLOPEDIC MEDICAL DICTIONARY
C. W. Taber. $4.00

THE FACE IN HEALTH AND DISEASE
Max Thorek. $8.00

INTERNAL DISEASES OF THE EYE AND ATLAS OF OPHTHALMOSCOPY
Manuel Uribe Troncoso. $22.00

GONIOSCOPY
Manuel Uribe Troncoso. $10.00

F. A. DAVIS COMPANY

1914-16 Cherry Street, Philadelphia 3, Pa. In Canada: The Ryerson Press, Toronto

Hemostasis and the pig

From the skin of the pig comes the specially prepared gelatin which is foamed, air-dried and molded into Gelfoam* – the biologically absorbable hemostatic sponge discovered and developed by Upjohn research workers.

Gelfoam is pliable, porous, nonantigenic, insoluble but absorbable gelatin sponge material. It is capable of absorbing 45 times its weight of blood and is useful in all fields of surgery to control capillary bleeding. Gelfoam may be cut to any required shape. It is supplied in several forms to cover a wide range of requirements.

In their successful quest for this new hemostatic agent, Upjohn research workers collaborated with clinical investigators to meet the practical needs of surgery for a biologically absorbable sponge.

*Trademark, Reg. U.S. Pat. Off.

Upjohn *Medicine... Produced with care... Designed for health*

THE UPJOHN COMPANY, KALAMAZOO 99, MICHIGAN

See Exhibit—Booths 61 & 63

Vorhaus

A GUIDE TO GENERAL MEDICAL PRACTICE

A helpful new book taking up the many problems which face the young physician entering general practice. All aspects of medical practice are considered—from selection of internships to development of practice—approaches to frequent clinical problems—and the role of the doctor as a family adviser.

by Martin Vorhaus, M.D., 244 pp., $3.50

Fisher

THE MEANING AND PRACTICE OF PSYCHOTHERAPY

A new work by an experienced author and teacher offering the newest thought and methods concerning abnormal psychology, psychoanalysis, and psychotherapy. Case material is exceptionally well presented, pointing up the author's theoretical considerations and clarifying psychoanalytic and treatment methods.

by V. E. Fisher, Ph.D., prob. $5.00

Green

RESEARCH IN MEDICAL SCIENCE

Presents in essay form those developments that are constantly taking place in the field of medical research. Essays included are written by various outstanding representatives in the fields of chemotherapy, therapeutics, physiology, epidemiology, microbiology, anthropology, and allied sciences.

Edited by David R. Green, Ph.D. and W. Eugene Knox, M.D., 402 pp., $6.50

Reich

DISEASES OF THE AORTA

A comprehensive text dealing exclusively with diseases of the aorta. Newest advances in diagnosis and treatment of syphilis, arteriosclerosis, occlusions, dissecting aneurysm, and rare diseases involving the aorta are considered in clarified style. Material is clarified by numerous drawings, tables, angiocardiograms, and roentgenograms.

by Nathaniel E. Reich, M.D., F.A.C.P., 275 pp., $7.50

Herms

MEDICAL ENTOMOLOGY, 4th ed.

Completely revised, this new edition provides that information essential to a complete knowledge and understanding of epidemiology of disease and resultant public health operations. Included is the latest information on arthropods as vectors of infections of man and animals as well as changes in various control techniques.

by William B. Herms, Sc.D., prob. $8.00

Penfield-Rasmussen

THE CEREBRAL CORTEX OF MAN

Summarizes our present day knowledge of cerebral function and presents a new point of view from which to study the cerebral cortex of man. Material is based on the review and analysis of over four hundred craniotomies in which the cortex of the human brain was stimulated under local anesthesia.

by Wilder Penfield, M.D., and Theodore Rasmussen, M.D., prob. $7.50

Marhevitz

BONE AND JOINT RADIOLOGY

An entirely new approach to the field of radiology presenting all the information known up to the present which may become evident through radiological interpretation. All conditions are viewed in the light of their physiology and pathology. Illustrative material consists of excellent halftones and line drawings of pathologic conditions.

by Emerik Marhevitz, M.D., 446 pp., 616 illus., $20.00

Cutler-Zollinger

ATLAS OF SURGICAL OPERATIONS

Completely revised edition of a famous atlas depicting the majority of surgical operations. Included are all the common operations in the field of gynecology, as well as procedures for thyroidectomy, tracheotomy, thoracostomy, laparotomy, gastrostomy, etc. Thirty new procedures have been added and almost half the plates have been revised and redrawn.

Elliott C. Cutler, M.D. and Robert M. Zollinger, M.D., 225 pp., 106 plates, $8.00

The Macmillan Company

60 Fifth Ave., New York 11, N. Y.

Please send me on approval the books checked below.
I will either remit in full or return the books in 10 days.

☐ Vorhaus: A GUIDE TO GENERAL MEDICAL PRACTICE
☐ Fisher: THE MEANING AND PRACTICE OF PSYCHOTHERAPY
☐ Green: RESEARCH IN MEDICAL SCIENCE
☐ Reich: DISEASES OF THE AORTA
☐ Herms: MEDICAL ENTOMOLOGY
☐ Penfield-Rasmussen: THE CEREBRAL CORTEX OF MAN
☐ Marhevitz: BONE AND JOINT RADIOLOGY
☐ Cutler-Zollinger: ATLAS OF SURGICAL OPERATIONS

Name .....

Address .....

McGRAW-HILL

McGRAW-HILL MEDICAL BOOKS

NEW AND AUTHORITATIVE PROFESSIONAL BOOKS

Booth B-6, A.M.A. Convention

Hicks and Warren's

INTRODUCTION TO NEUROPATHOLOGY

The fundamentals of neuropathology are presented in this new volume designed to treat the study of neurological disorders in relation to the disease processes in the body as a whole.

By SAMUEL P. HICKS, M.D., and SHIELDS WARREN, M.D. 1950. 494 pages, 7¼ x 9¾, with 289 illustrations.....$10.00

Cohn's

CLINICAL ELECTRO-ENCEPHALOGRAPHY

A guide to the interpretation of human electro-encephalograms, this new book offers a complete discussion of EEG as a diagnostic procedure and a compilation of typical cases encountered.

By ROBERT COHN, M.D. 1949. 639 pages, 11 x 8½, illustrated with 273 tracings.....$14.00

Bridge's

EPILEPSY AND CONVULSIVE DISORDERS IN CHILDREN

A thorough-going presentation of all the known facts concerning epilepsy and convulsions, particularly among children, based on studies done at the Johns Hopkins Epilepsy Clinic.

By EDWARD M. BRIDGE, M.D. McGraw-Hill Series in Health Science. 1949. 670 pages, 6 x 9, illustrated $8.50

Siri's

ISOTOPIC TRACERS AND NUCLEAR RADIATIONS WITH APPLICATIONS TO BIOLOGY AND MEDICINE

A vast amount of previously inaccessible data on the rapid developments in nuclear physics and tracer techniques is compiled in this book for the biologist and medical research worker.

By WILLIAM E. SIRI and five contributing authors. 1949. 653 pages, 6 x 9, illustrated...$12.50

Nonidez and Windle's

TEXTBOOK OF HISTOLOGY

This important book, containing many original drawings and diagrams as well as 193 photomicrographs, concentrates on practical fundamentals to achieve a complete coverage of the subject.

By JOSÉ F. NONIDEZ and WILLIAM F. WINDLE. 1949. 456 pages, 6 x 9, with 287 illustrations $6.75

Puffer's

PRACTICAL STATISTICS IN HEALTH AND MEDICAL WORK

An effective presentation of the applications of statistics to medicine and public health intended to give suggestions and guidance in the interpretation of health and medical problems.

By RUTH RICE PUFFER, Dr.P.H. McGraw-Hill Series in Health Science. 1950. 238 pages, 5½ x 8, illustrated.....$3.75

Thoms'

TRAINING FOR CHILDBIRTH

A Program of Natural Childbirth with Rooming-in

A professional report on the details of the "Training for Childbirth" program in operation at the Grace-New Haven Hospital written by a leading authority on "Natural Childbirth."

By HERBERT THOMS, M.D. McGraw-Hill Series in Health Science. 1950. 114 pages, 5½ x 8, illustrated.....$3.00

Lemkau's

MENTAL HYGIENE IN PUBLIC HEALTH

This unique book provides medical and public health personnel with an effective basis for the establishment of constructive programs for the promotion and protection of mental health.

By PAUL V. LEMKAU, M.D. McGraw-Hill Series in Health Science. 1949. 396 pages, 6 x 9, illustrated $4.50

Order from your favorite medical book dealer or write direct to:

McGRAW-HILL BOOK COMPANY, INC.
330 West 42nd Street • New York 18
HEALTH EDUCATION DIVISION

Please send me the books checked below for 30 days' examination on approval.

☐ *Hicks & Warren*	☐ *Nonidez & Windle*
☐ *Cohn*	☐ *Puffer*
☐ *Bridge*	☐ *Thoms*
☐ *Siri*	☐ *Lemkau*

Name_____

Street_____ City_____

H-A5 Cash Enclosed ☐ Bill me ☐

McGRAW-HILL MEDICAL BOOKS

TRANSACTIONS OF JOSIAH MACY, JR. FOUNDATION CONFERENCES

	Postpaid	Please Check
ADRENAL CORTEX		
1st meeting—1949	$2.00	☐
AGING		
10th and 11th meeting—1948 and 1949 (pp. 260—7 illus.) (First Published Transactions)	$3.75	☐
BIOLOGICAL ANTIOXIDANTS		
1st meeting—1946 (pp. 81—15 illus.)	$2.00	☐
2nd meeting—1947 (pp. 116—12 illus.)	$2.25	☐
3rd meeting—1948 (pp. 148—12 illus.)	$2.70	☐
4th meeting—1949 (in preparation)		☐
BLOOD CLOTTING AND ALLIED PROBLEMS		
1st meeting—1948 (pp. 179—26 illus.)	$3.25	☐
2nd meeting—1949 (pp. 234—29 illus.)	$2.25	☐
CYBERNETICS		
6th meeting—1949 (First Published Transactions)		☐
FACTORS REGULATING BLOOD PRESSURE		
1st meeting—1947 (pp. 175—10 illus.)	$1.90	☐
2nd meeting—1948 (pp. 170—4 illus.)	$2.75	☐
3rd meeting—1949 (pp. 220—48 illus.)	$2.55	☐
INFANCY AND CHILDHOOD		
1st meeting—1947 (pp. 70)	.6 .75	☐
2nd meeting—1948 (pp. 120—6 illus.)	$1.00	☐
3rd meeting—1949 (pp. 156—no illus.)	$1.25	☐
LIVER INJURY		
5th meeting—1946 (pp. 127—30 illus.)	$2.25	☐
6th meeting—1947 (pp. 76—9 illus.)	$2.00	☐
7th meeting—1948 (pp. 95—15 illus.)	$1.50	☐
8th meeting—1949 (pp. 164—57 illus.)	$1.60	☐
METABOLIC ASPECTS OF CONVALESCENCE		
11th meeting—1945 (pp. 155—42 illus.)	$1.00	☐
12th meeting—1946 (pp. 174—77 illus.)	$1.50	☐
13th meeting—1946 (pp. 232—67 illus.)	$2.00	☐
14th meeting—1946 (pp. 190—78 illus.)	$2.25	☐
15th meeting—1947 (pp. 163—35 illus.)	$2.25	☐
16th meeting—1947 (pp. 168—39 illus.)	$3.00	☐
17th and final meeting—1948 (pp. 246—79 illus.)	$4.00	☐
METABOLIC INTERRELATIONS		
1st meeting—1949 (pp. 196—23 illus.)	$2.95	☐
RENAL FUNCTION		
1st meeting—1949 (in preparation)		☐
TRAINING IN CLINICAL PSYCHOLOGY		
1st meeting—1947 (pp. 88—no. illus.)	$1.50	☐

Order from and make checks payable to

JOSIAH MACY, JR. FOUNDATION

565 Park Avenue, New York 21, N. Y.

Enclosed is $..... in full payment for the copies checked above.

Purchaser

Address

City Zone State

Photo No. 1—Inhalation Completed. Photo No. 2—Exhalation Started. Photo No. 3—Exhalation Completed. Respiratory cycle is from Photo No. 1 to Photo No. 3 and back to Photo No. 1. Speed and angle of oscillation is regulated by controls on instrument at right.

See This New Polio Bed at San Francisco

McKESSON RESPIRAID ROCKING BED

TO BE SHOWN AT A.M.A. CONVENTION

Here's the Bed many specialists consider *one of the great advancements in the treatment of Poliomyelitis since the invention of the iron lung.*

Because it's far less costly and far more convenient, many leading Polio institutions are already using these sensational McKesson Respiraid Rocking Beds.

Get posted on one of the most-talked-of new developments of the year. See Respiraid Rocking Bed at McKesson's Booth at the San Francisco Session.

McKesson APPLIANCE COMPANY TOLEDO 10, OHIO

At Long Last . . .

- **A POTENT MERCURIAL DIURETIC**
- **SAFE FOR SUBCUTANEOUS INJECTION**
- **VIRTUALLY FREE FROM CARDIAC TOXICITY**

During the past four years some fifteen groups in leading hospitals and medical colleges have investigated the pharmacologic properties and clinical value of Thiomerin. This exhaustive and critical research has established the following significant facts:—

1. **Thiomerin is so well tolerated that it is safe for subcutaneous injection.**
2. **Thiomerin is virtually free from cardiac toxicity, being 160 to 200 times less toxic upon the heart than the older mercurial diuretics on the basis of animal experiments.**
3. **Thiomerin administered subcutaneously is equally or more efficient than other mercurial diuretics given intramuscularly.**

BIBLIOGRAPHY

An impressive volume of pharmacologic and clinical data on Thiomerin is emanating from numerous research groups. Among the reports published to date are:

Lehman, Robert A.—Department of Therapeutics, New York University College of Medicine—Proc. Soc. Exp. Biol. and Med. 1947, **64**, 428-433. ■ Lehman, Robert A., Taube, Harry, and King, E. E.—Department of Therapeutics, New York University College of Medicine—Proc. Soc. Exp. Biol. and Med. 1949, **71**, 1-6. ■ Bay, Emmet B.—University of Chicago—Modern Concepts of Cardiovascular Disease, **Vol. 18**, No. 3. ■ Herrmann, George R., Chriss, John W., Hejtmancik, Milton R., and Sims, Paul M.—University of Texas, Medical Branch, Galveston, Texas—Texas State Journal of Medicine, February 1949, **Vol. 45**, 79-82. ■ Batterman, Robert C., Unterman, David, and DeGraff, Arthur C.—Department of Therapeutics, New York University College of Medicine—J.A.M.A. August 20, 1949, **Vol. 140**. ■ Feinberg, Alan R., Isaacs, Julien H. and Boikan, William S.—Cook County Hospital, Chicago, Ill.—Am. J. Med. Sc., Sept. 1949, **Vol. 218**. ■ Winik, I. W. and Benedict, R. B.—George Washington University School of Medicine—J. Lab. and Clin. Med., Sept. 1949, **34**:1254. ■ Enselberg, Charles D. and Simmons, Henry G.—Gouverneur Hospital, New York, N. Y.—Am. J. Med. Sc., Feb. 1950, **Vol. 219**. ■ Batterman, Robert C.—Department of Therapeutics, New York University College of Medicine—An. West. Med. and Surg., January 1950. ■ Grossman, J., Weston, R. E., Edelman, I. S. and Leiter, L.—Montefiore Hospital, New York, N. Y.—Circulation, **Vol. 1**, No. 4. ■ Stewart, Harold J., McCoy, Herbert L., Sheppard, Edward M. and Luckey, E. Hugh—Cornell University Medical College, New York, N. Y.—Circulation, **Vol. 1**, No. 4.

Council Accepted

THIOMERIN®

A Fundamental Contribution to the Diuretic Therapy of Edema

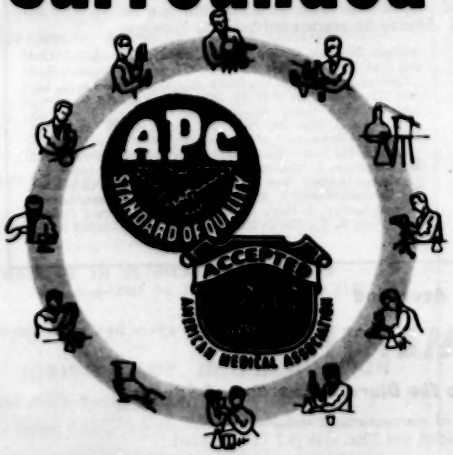
Thiomerin Sodium—brand of mercaptomerin sodium—
is supplied in 10cc. vials (1.4 Gm. powder) and 30cc. vials (4.2 Gm. powder).

Literature available on request.

CAMPBELL PHARMACEUTICAL CO., 79 Madison Avenue, New York 16, N. Y.

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
AMERICAN MEDICAL ASSOCIATION	Ernest E. Irons, Chicago	George F. Lull, 535 N. Dearborn St., Chicago 10	San Francisco, June 26-30
Auxiliary to American Medical Association	W. E. Kellum, Pensacola, Fla.	T. H. Sutherland, 211 S. State St., Marion, Ohio	Chicago, May 29-31
American			
Academy of General Practice	Stanley R. Truman, Oakland, Calif.	Mr. Max F. Cabal, 404 W. 24th St., Kansas City 2, Mo.	San Francisco, March 19-22
Academy of Ophthalmology and Otolaryngology	Conrad Berens, New York	W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn.	Chicago, Oct. 9-13
Academy of Pediatrics	Edward R. Shaw, San Francisco	C. G. Grulee, 636 Church St., Evanston, Ill.	Chicago, Oct. 16-19
Association for Thoracic Surgery	Edward J. O'Brien, Detroit	Brian Blades, 901 20th St., N.W., Washington 6, D. C.	
Association of Anatomists	Sam Clark, Nashville, Tenn.	Leonard L. Rioff, 2100 Adelbert Rd., Cleveland 6	Detroit, March 21-23
Assn. of Genito-Urinary Surgeons	J. A. C. Culotta, Baltimore	Norris J. Heibel, 122 E. Michigan Ave., Chicago 2	Hershey, Pa., May 24-26
Assn. of Industrial Phys. & Surg.	Alfred H. Whittaker, Detroit	Fred T. W. Bluhdorn, 28 E. Jackson Blvd., Chicago 4	Hot Springs, Va., Sept. 7-9
Assn. of Obst., Gyn. & Abd. Surg.	S. A. Cosgrove, Jersey City, N. J.	Fred A. Calkins, U. of Kansas Medical Center, Kansas City 3	
Assn. of Pathologists and Bacteriologists	Shields Warren, Boston	Alan R. Moritz, 2085 Adelbert Road, Cleveland 6	Chicago, April 3-5
Association of Railway Surgeons	J. A. Cahill, Dubuque, Iowa	Chester C. Guy, 3000 Henry Island Ave., Chicago 27	Boston, May 21-25
Association of the History of Medicine	Henry R. Viets, Boston	Benjamin Spector, 416 Huntington Ave., Boston 15	
Association on Mental Deficiency	Mildred Thaxton, St. Paul, Minn.	Neil A. Dayton, P. O. Box 66, Williamstown, Conn.	
Binocular Roentgenological Association	LeRoy A. Schall, Boston	Edwin X. Doyle, 1100 N. Charles St., Baltimore 1	San Francisco, May 25-26
Clinical and Climatological Association	John Y. King, Baltimore	Tas. Bentley III, M. I. Barnett Hosp., Camperdown, N. Y.	Hershey, Pa., May 31-June 2
College of Chest Physicians	Joseph Pisani, Cleveland	Mr. Murray Kornfeld, 360 N. Michigan Blvd., Chicago 10	San Francisco, June 22-25
College of Physicians	Reginald Fitz, Boston	Mr. R. V. Loveland, 4200 Pine St., Philadelphia 4	
College of Radiology	Arthur W. Erskine, Cedar Rapids, Iowa	Mr. E. J. Simonds, 30 N. Wacker Drive, Chicago 6	San Francisco, June 25
College of Surgeons	Frederick A. Coller, Ann Arbor, Mich.	Paul B. Magnuson, 30 E. 40th St., New York 16	Boston, Oct. 23-27
Congress of Physical Medicine	Earl C. Elkins, Rochester, Minn.	Richard Kovacs, 2 East 103rd St., New York 29	Boston, Aug. 29-Sept. 1
Dermatological Association	Charles C. Dennis, Kansas City, Mo.	Dr. Irvin Brunsting, 1801 2d Ave. S.W., Rochester, Minn.	Jasper Nat'l Pk., Can., June 18-22
Electro-Encephalographic Association	J. Arnold Bargen, Rochester, Minn.	Dwight L. Wilbur, 435 Sutter St., San Francisco	
Goiter Association	T. C. Davison, Atlanta, Ga.	G. C. Shivers, 100 E. N. Wyatt St., Colorado Springs	Columbus, Ohio, 1951
Gynecological Society	Ludwig Baugh, San Francisco	Norman F. Miller, 1313 E. Ann, Ann Arbor, Mich.	
Laryngological Association	Ralph A. Fenton, Portland, Ore.	Louis H. Clerf, 128 South 19th St., Philadelphia 3	San Francisco, May 22-25
Leprosy, Skin, and Oral Society	Robert C. Martin, San Francisco	S. Marx, 277 Alexander St., Rochester 7, N. Y.	San Francisco, May 22-25
Medical Women's Association	Dr. W. Atkinson, San Francisco	Grace Talbot, 901 Hyde St., San Francisco 9, Calif.	Carmel, Calif., June 29-30
Neurological Association	Henry W. Woltman, Rochester, Minn.	H. Houston Merritt, 710 W. 168th St., New York 32	Atlantic City, June 12-14
Ophthalmological Society	Parker Heath, Boston	M. Wheeler, P. O. Box 24, Iowa City	Hershey, Pa., May 31-June 2
Orthopaedic Association	R. W. Johnson, Jr., Baltimore	Leslie Leonetti, Henry Ford Hospital, Detroit 2	Virginia Beach, Va., May 25-26
Otological Society	Philip E. Meltzer, Boston	Lucius D. Hoople, 1100 E. Genesee St., Syracuse 3, N. Y.	San Francisco, May 21-22
Pediatric Society	Philip C. Jones, Iowa City	Henry G. Poppler, 1819 W. Lehigh Ave., Philadelphia 32	
Physiological Society	C. J. O'Gierty, Cleveland	M. G. Lee, 2101 Constitution Ave., Washington 25, D. C.	Los Angeles, July 1-5
Proctologic Society	Louis E. Hinz, Omaha	W. W. Green, 1830 Parkmont Ave., Toledo 7	
Psychiatric Association	Lawrence Kolb, New York	Leo H. Bartemeier, Sheppard-Enoch Pratt Hosp., Towson 4, Md.	St. Louis, Oct. 30-Nov. 3
Public Health Association	Linsly J. Reed, Baltimore	S. M. Atwater, 1790 Broadway, New York 19	New York, May 25-26
Radium Society	William Martucci, New York	Hugh Hays, 601 Commonwealth Ave., Boston 15	
Roentgen Ray Society	Lauren Chenoweth, Cleveland	Burton R. Tuttle, Organization Dept., Philadelphia	
Society for Clinical Investigation	T. Hale Hamb, Boston	Paul B. Beeson, Grady Hosp., Atlanta 3, Ga.	
Society for Experimental Pathology	James F. Rinehart, San Francisco	Melchior C. Meyer, Boothbay Harbor, Maine	Cleveland, April 30-May 4
Society for Pharm. and Exp. Ther., Inc.	Carl J. Schmidt, Philadelphia	H. B. Haag, Medical College of Va., Richmond 19	Cleveland, April 29-May 4
Society of Anesthesiologists	R. J. Whitacre, East Cleveland, Ohio	J. E. Sterlinger Jr., 188 W. Randolph St., Chicago	Houston, Texas, Nov. 7-10
Society of Biological Chemists	Carl F. Cori, St. Louis	R. W. Jackson, 925 E. University Dr., Peoria 3, Ill.	
Society of Clinical Pathologists	James F. McNaught, Denver, Colo.	H. G. Culbertson, 1040 W. Michigan St., Indianapolis 4	Chicago, Oct. 17-21
Society of Tropical Medicine	H. H. Anderson, San Francisco	Quentin M. Grimes, 25 Shattuck St., Boston 15	Memphis, Tenn., Nov., 1950
Surgical Association	Samuel C. Harvey, New Haven, Conn.	Kenneth Goodall, 1720 Baltimore, Kansas City, Mo.	Washington, D. C., April 11-13
Therapeutic Society	Daniel L. Sexton, St. Louis	O. B. Hunter, 915 19th St., N.W., Washington, D. C.	
Urological Association	Carl F. Rourke, Hollywood, Calif.	C. E. Kay Shivers, South Bay Arcade Bldg., Atlantic City	Washington, D. C., May 29-June 1
Assn. for the Study of Int. Secretions	Edward C. Dutty, St. Louis	H. H. Turner, 1200 N. Walker St., Oklahoma City	San Francisco, June 22-24
Association of American Medical Colleges	Joseph C. Hinsey, New York	Dean F. Smiley, 185 N. Wabash Ave., Chicago	Lake Placid, N. Y., Oct., 1950
Association of American Physicians	A. S. Dorbey, Cincinnati	W. M. M. Kirby, Jr., 1301 N. Calvert St., Baltimore 2	
Association of Military Surgeons of U. S.	William R. Tripler, Baltimore	J. M. Phalen, Armed Forces Inst. of Path., Washington 25	New York, May 8-11
Assn. of State & Territorial Health Officers	W. L. Halvorson, San Francisco	L. E. Burney, 1064 W. Michigan St., Indianapolis 7	Washington, D. C., Oct., 1950
Central Surgical Association	Walter M. Kiene, Milwaukee	Wendell Phillips, 1 Gateway Center, Pittsburgh 22	Chicago, 22-24
College of American Pathologists	F. W. Lamb, Davenport, Iowa	M. G. Weinmeister, 303 N. Wabash Ave., Chicago 1	
Federation of Am. Soc. for Exp. Biol.	Glen C. King, New York	C. O. Lee, 2101 Constitution Ave., Washington 25, D. C.	
Medical Library Association	Janet D. Locke, Baltimore	Miss Helen Hilmer, 59 E. 23d St., New York 10	Boston, June 19-22
National Medical Association	C. Herbert Marshall, Washington, D. C.	John Y. Given, 1100 Church St., Norfolk 10, Va.	Hampton, Va., Aug. 28-Sept. 1
National Tuberculosis Association	R. D. Thompson, La Vina, Calif.	H. Stuart Willis, 1790 Broadway, New York 19	
Radiological Society of North America	Edgar P. McNeeley, Cleveland	D. S. Childs, Medical Arts Bldg., Syracuse 2, N. Y.	
Society of American Bacteriologists	W. Mrh. Hausman, San Francisco	Ann S. Blair, 1919 Madison Ave., New York 35	St. Louis, Nov. 13-16
Southern Medical Association	Hamilton W. McKay, Charlotte, N. C.	Mr. Leon P. Lovelace, Medical Arts Bldg., Birmingham, Ala.	Hollywood, Fla., Dec. 5-7
U. S. Chapter, Internat'l Coll. of Surgeons	T. Brindley, Temple, Texas	John C. Burch, 2212 West End Ave., Nashville, Tenn.	Cleveland, Oct. 30-Nov. 3
Western Surgical Association	H. W. Meyerding, Rochester, Minn.	Arnold R. Jackson, 1516 Lake Shore Dr., Chicago	Minneapolis, Nov. 30-Dec. 2
	Warren H. Cole, Chicago	Michael Mason, 124 E. Erie St., Chicago	

surrounded by every scientific safeguard



Every lot of every APC preparation comes under the vigilance of laboratory technicians through every step of manufacture • Skillful hands and knowing minds check, recheck, and check again to insure end-products of . . .

• constant quality
• uniformity
• clinical dependability
• economical, too . . . always

AMERICAN PHARMACEUTICAL COMPANY • MANUFACTURING CHEMISTS NEW YORK 18, N. Y.

The Fundamental Value of Folic Acid in Nutrition

X. INTERRELATIONSHIPS OF FOLIC ACID WITH OTHER VITAMINS

A deficiency of either folic acid or ascorbic acid will cause a decrease in the oxidation of tyrosine with an increase of hydroxyphenol derivatives in the urine. Clinically this condition is found in pernicious anemia patients, those with scurvy, and premature infants. Both folic acid and liver extract are needed for full recovery in experimental niacin deficiency. Folic acid is an essential component of choline oxidase. Both folic acid and vitamin B_{12} are needed for normal hemopoiesis. These functions of folic acid are of fundamental importance in metabolism, but do not constitute indications for the administration of any of the pteroyl glutamates.

POLVITE* Folic Acid Lederle

Elixir: Bottles of 4 fluid ounces. Tablets: Tubes of 25, and bottles of 100 and 1000, 5 mg. each tablet.

POLVITE Sodium Folate Solution Lederle

12 and 100 ampuls of 1 cc., 15 mg. per cc.

*Reg. U. S. Pat. Off.

Lederle Laboratories Division

American Cyanamid Company · 30 Rockefeller Plaza · New York 20, N.Y.

MANAGEMENT OF THE CARDIAC OUTPATIENT

by DONALD B. FRANKEL, M.S., M.D.
Fairfield, Illinois

"The generalized lack of hospital facilities today necessitates home or office treatment of the ambulatory patient with chronic cardiac decompensation. Treatment must be aimed at rapid and safe symptomatic relief, as well as at control of the failing heart.

"*Mercuhydrin* proved to have many advantages, chiefly that it caused a rapid and continuous diuresis, and thus rapid relief for the patient. It was uniformly well tolerated, and in no patient was there any reaction.

"Another advantage was the ease of maintaining the 'dry weight' with only one or two injections per week.

conclusions

"Ninety-eight patients with clinical cardiac decompensation were treated as out-patients. Meralluride sodium* proved to be a necessary part of the therapy for chronic cardiac decompensation.

"1. Meralluride sodium *(Mercuhydrin)* caused no local or systemic reaction in any patient and was well tolerated by all; 2. It is as effective by the intramuscular route as by the intravenous and displayed a rapid and dramatic effect in every case; . . . 4. It is as important as any other factor in the emergency treatment of paroxysmal nocturnal dyspnea and cardiac asthma."

MERCUHYDRIN®
SODIUM

well tolerated locally, a diuretic of choice

MERCUHYDRIN (Meralluride sodium solution) is available in 1cc. and 2cc. ampuls.

Lakeside Laboratories, INC., MILWAUKEE 1, WISCONSIN

4 Ways

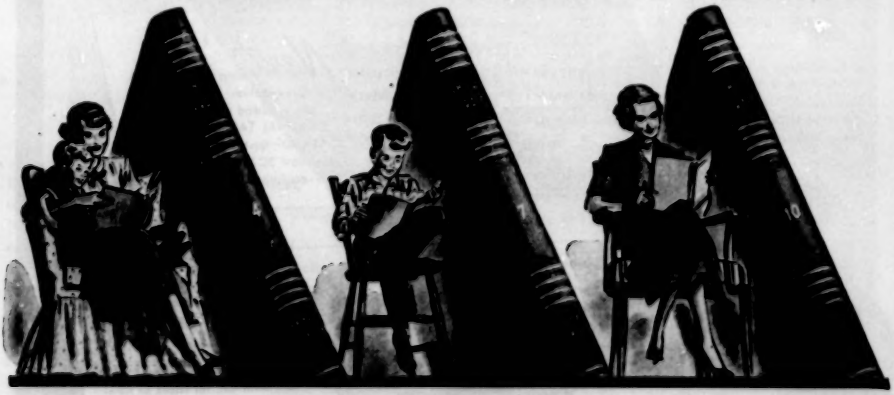
1. Four of the fourteen big volumes are packed with parent guidance material. This material has been prepared by over 50 child specialists—from pediatricians to educators—and it is based upon the findings of 35 different universities, institutes, and child guidance centers. Thus, you provide your patients with today's most authoritative child guidance material.

2. While waiting in your reception room, mothers have an opportunity to look up the answers to many of the non-medical questions that are often put to you. Thus, you save many minutes during consultation hours which will permit you to see more patients.

3. As a physician-owner of Childcraft, you are entitled to receive a *liberal free* supply of pamphlets dealing with the 135 non-medical questions most often asked of you about the rearing of children. These pamphlets please the patient because each subject is thoroughly discussed and, in turn, they help you save more minutes during your consultation hours.

4. Ten of the fourteen big Childcraft volumes are specifically designed for children. Fascinating stories, pictures and articles help to keep the restless smaller children amused while awaiting their turn in your reception room.

—and that's why so many doctors have Childcraft in their reception rooms.



SEE THE NEW EDITION OF CHILDCRAFT—TODAY'S MOST COMPLETE AND AUTHORITATIVE CHILD GUIDANCE PLAN

This Coupon Entitles You...

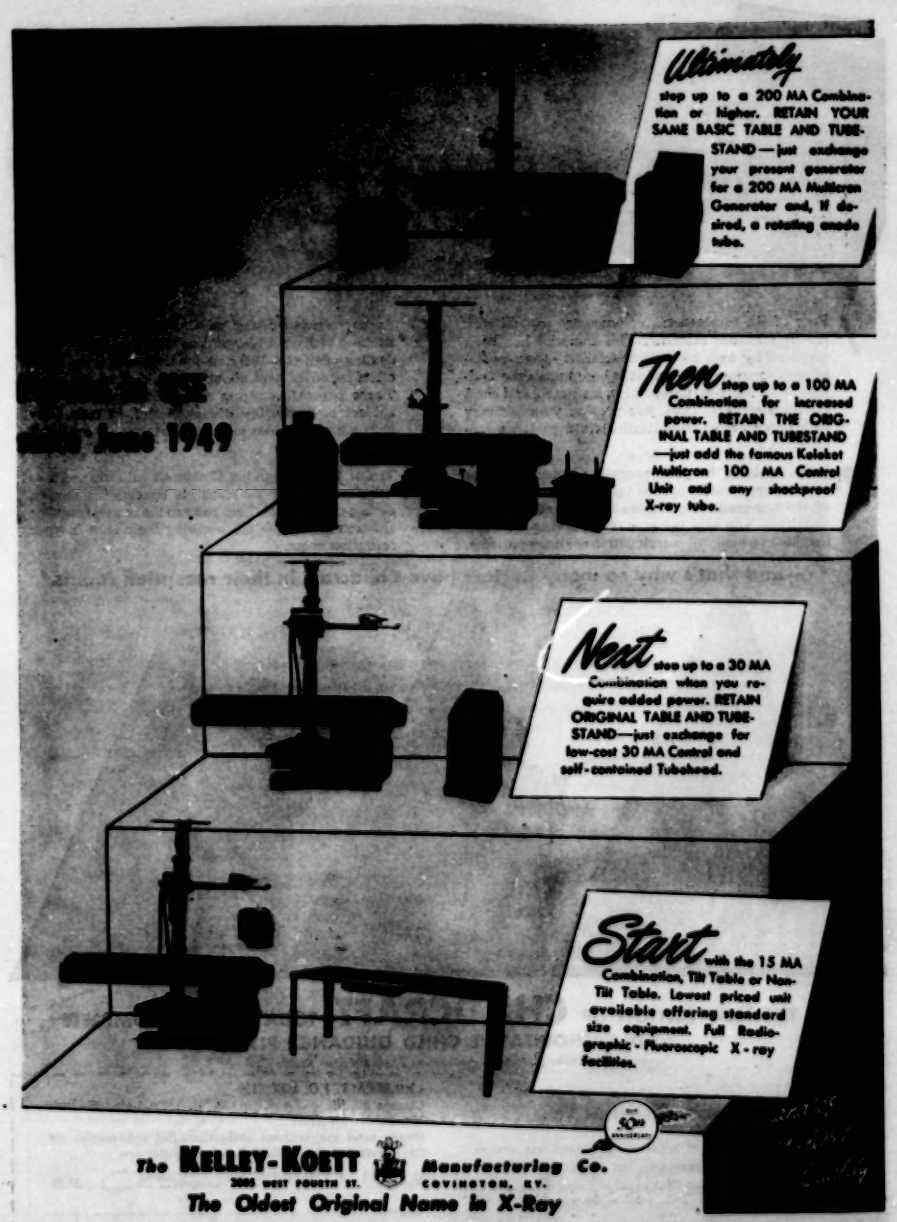
to receive a free sample of some of the pamphlets now in use by physicians. The complete list of titles with other descriptive literature about Childcraft will also be supplied. Please write on your letterhead or use coupon alongside.

CHILDCRAFT, P.O. BOX 6139
Chicago 80, Ill.
Mr. C. N. Monroe
Please send me, without obligation, full information on Childcraft and the Childcraft Advisory Service.

Name ..... , M.D.

Address .....

City ..... Zone ..... State .....



The KELLEY-KOETT Manufacturing Co.
2005 WEST FOURTH ST. COVINGTON, KY.
The Oldest Original Name in X-Ray

GEXANE

Brand of Gamma Benzene Hexachloride (Lindane)

For Positive Control of SCABIES and PEDICULOSIS

ONE APPLICATION
usually sufficient

•

NEGLIGIBLE SECONDARY COMPLICATIONS

•

VIRTUALLY NON-IRRITATING

•

GREASELESS STAINLESS

•

EASY TO APPLY

•

AESTHETICALLY ACCEPTABLE

Gexane is supplied as a lotion in 2 oz. bottles, pints and gallons . . . and as an ointment in ¼ oz. tubes and pound jars.

Because Gexane is greaseless, stainless, clean smelling, and easy to apply, it is as aesthetically acceptable as a cosmetic . . . an important attribute in treating certain contagious infestations that respect neither age, sex nor social status.

In most cases a single application of Gexane . . . a 1% concentration of the pure Gamma Isomer of Hexachlorocyclohexane . . . will destroy the parasites of both scabies and pediculosis. Action is prompt and specific. Gexane does not cause, nor is its use contraindicated by secondary infection. May be used on adults, children and babies.

Gexane is dispensed on prescription only. Write today for descriptive literature and complimentary samples.

R. J. Strasenburgh CO.
ROCHESTER 14, NEW YORK
FOUNDED IN 1886

Baby eats eagerly with no coaxing!

From the first spoonful of solid food you can recommend Beech-Nut for your young patients! That's the easy way to avoid feeding problems. No baby foods offer higher quality or finer flavor than a baby gets in Beech-Nut Cereal, Strained Foods and Junior Foods. A complete choice to meet all normal dietary needs.

Babies love them—thrive on them

Beech-Nut

FOODS for BABIES

Beech-Nut high standards of production and ALL ADVERTISING have been accepted by the Council on Foods and Nutrition of the American Medical Association.

BUT...

. . . HOW LONG CAN SHE RESIST?

SHE's never won laurels for strength of will-power. Now, with hunger gnawing at her capacious vitals, she can easily succumb to the pleasures of forbidden foods.

● It's at this point that many physicians prescribe DESOXYN Hydrochloride. DESOXYN decreases the craving for food and at the same time imparts a sense of well-being. Just one 2.5-mg. tablet before breakfast and another about an hour before lunch is usually sufficient to depress the appetite. A third tablet may be taken in midafternoon if necessary, and if it does not cause insomnia.

● This small dosage is possible because weight for weight DESOXYN Hydrochloride is more potent than other sympathomimetic amines. Investigators have shown, too, that DESOXYN has a faster action, longer effect and relatively few side-effects.

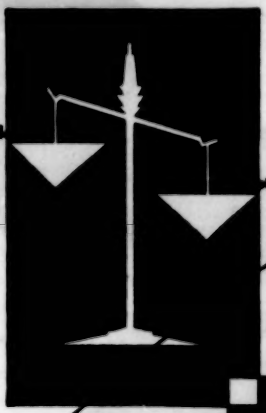
● You will find that there are many uses for DESOXYN both orally as a central stimulant and parenterally as a superior vasopressor agent. For literature on indications and dosage, write to Abbott Laboratories, North Chicago, Ill. Abbott

AMPOULES
20 mg. per cc.

Prescribe

DESOXYN® *Hydrochloride*

(METHAMPHETAMINE HYDROCHLORIDE, ABBOTT)



so adequate

There's a wide safety margin between the amount of menstrual flow* and the absorptive capacity of TAMPAX tampons—a fact strongly substantiated by the purchase of more than two billion TAMPAX in the past twelve years. The comfort and convenience of the three absorbencies of these dainty intravaginal cotton guards (with individual applicators) are also strongly appealing.

*Am. J. Obst. & Gyn., 31:979, 1936.

TAMPAX INCORPORATED • PALMER, MASS.

ACCEPTED FOR ADVERTISING BY THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
AMA 20-36

TAMPAX

the internal menstrual guard of choice

Your request will bring professional samples promptly.

See Us at Booth F-25 at the San Francisco Session

"Intermediate" Sedation

V 1
195

in Nervousness

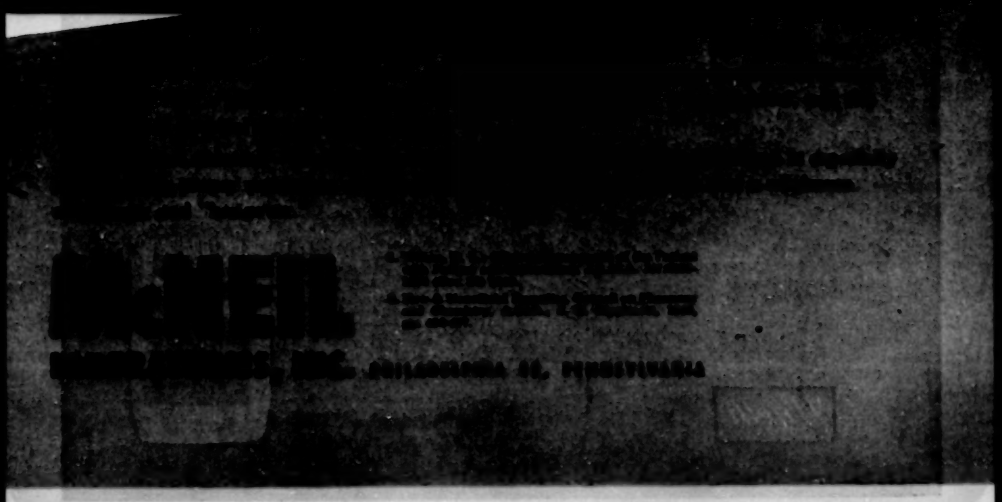
In outlining the clinical management of the patient with fatigue and nervousness, Wilbur[1] states:

> "Symptomatic treatment of exhausted and nervous persons may be extremely helpful . . . It reassures the patient, gives him a more hopeful outlook, strengthens his confidence in the physician and consequently simplifies psychotherapy.
>
> "Sedatives are the most useful drugs in treatment . . ."

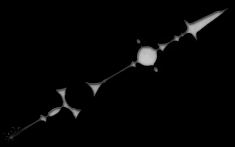
Small doses of sedatives, states this author, used during the day and to obtain sleep at night "can change the whole symptomatic complexion of a nervous patient." Except in severely psychoneurotic persons, he has not found that psychologic dependence on barbiturates becomes common.

Butisol Sodium

INTERMEDIATE SEDATIVE



HABIT
TIME
WITH



Wyeth

Are you taking advantage of this free Ivory Handy Pad?

"THE HYGIENE OF PREGNANCY"

Thousands of doctors have discovered, and are now using this quick, easy way to give mothers-to-be routine hygienic instructions: They simply hand each parturient patient a leaflet from the Ivory Handy Pad on "The Hygiene of Pregnancy."

In each Handy Pad there are 50 leaflets with printed instructions covering a group of approved hygienic rules on exercise, rest, diet and allied subjects as they relate to the expectant mother. Ample space is provided at the end of every leaflet for your own additional written instructions, when necessary. Thus, use of the Ivory Handy Pad greatly simplifies your task of providing the indicated guidance, and at the same time furnishes your patient with the required instructions in a permanent, easy-to-consult form.

5 Different Ivory Handy Pads, Available Free

Ivory Soap has developed for you five different Handy Pads, each of which is designed to meet a specific need in office or clinic. The entire series contains no controversial matter and includes only professionally accepted routine instructions for supplementary or home treatment.

USE THIS ORDER-BLANK TO OBTAIN—FREE—ANY OR ALL OF THE HANDY PADS

IVORY SOAP, Dept. 1, Box 687, Cincinnati 1, Ohio

Please send, at no cost or obligation, one of each Ivory Handy Pad checked:

- ___Handy Pad No. 1: "Instructions for Routine Care of Acne."
- ___Handy Pad No. 2: "Instructions for Bathing a Patient in Bed."
- ___Handy Pad No. 3: "Instructions for Bathing Your Baby."
- ___Handy Pad No. 4: "The Hygiene of Pregnancy."
- ___Handy Pad No. 5: "Home Care of the Bedfast Patient."

_____ M. D.

ADDRESS _____

CITY _____ ZONE ____ STATE _____

This is number two of a series of three announcements of nutrition research.

Keeping up with Nutrition Research

New study just released on the effect of cholesterol-containing foods

FOR YEARS, it has been known that too much cholesterol in the blood stream is correlated with certain types of cardiovascular disease.

A new study of this problem has now been published.* Experiments were conducted with hundreds of human subjects, to determine what effect the consumption of cholesterol-containing foods had on the cholesterol-level in the individual's blood stream.

The results of these tests may well mark the beginning of a better understanding of cholesterol-containing foods such as milk and milk products.

*Keys, A. "*The relation in man between the levels of cholesterol in the diet and in the blood.*" Science, 1950 (In press)

The presence of this seal indicates that all nutrition statements in this advertisement have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.

National DAIRY COUNCIL

111 North Canal Street • Chicago 6, Illinois

Since 1915 . . . the National Dairy Council, a non-profit organization, has been devoted to nutrition research and education to extend the use of dairy products.

BEAUTY WITHOUT QUESTION

No need for women to ask "is it safe for my skin" when they choose DuBarry Beauty Preparations.

Doctors can be of great help to patients in recommending cosmetics that are "science-safe." DuBarry Preparations... accepted as "hypo-allergenic" by the American Medical Association... are produced under the same conditions of scientific control with which pharmaceutical products are manufactured.

Richard Hudnut

113 West 18th Street · New York 11, N. Y.

Makers of the famous Richard Hudnut Home Permanent and Cosmetics of Rare Quality

Listen to Walter Winchell, ABC Network, Sunday Nights

FOR SPECIALLY PREPARED BOOKLET, "HISTORY AND SCIENTIFIC FORMULATION OF COSMETIC PREPARATIONS," WRITE: PROFESSIONAL SERVICE DIVISION, RICHARD HUDNUT, 113 WEST 18TH STREET, NEW YORK 11, NEW YORK

to promote normal evacuation

and prevent chronic constipation

KONSYL

the mucilaginous coating of plantago ovata (blond *psyllium seed).

Konsyl, the original Plantago Ovata concentrate, is designed for the safe and effective prevention and control of constipation and the promotion of *normal* evacuations . . . designed for those people who are obliged to "take something" every day. It is not a laxative in the sense that it will move the bowels of one who is constipated but, because it adds water and lubrication to the intestinal contents, Konsyl promotes normal peristalsis. Non-habit forming and easy to take, economical Konsyl produces soft and easily evacuated stools. Try it in the next case where it is applicable. Send for samples and literature now.

SUPPLIED in 6 oz. and 12 oz. packages.

Burton, Parsons & Co., 1515 "U" STREET, N. W., WASHINGTON 9, D. C.

AN ADVANCE IN ANTIBACTERIAL THERAPY

THE COMMON OCCURRENCE OF **MIXED SURFACE INFECTIONS...**

in burns and chronic wounds suggests the use of an antibacterial agent with a wide antibacterial spectrum. Furacin, effective against a variety of wound bacteria in vivo, is receiving favorable and steadily increasing mention in the literature for such conditions.*

Furacin® brand of nitrofurazone N.N.R. is available in 0.2 per cent concentration in water-miscible vehicles. It is indicated for topical application *in the prophylaxis or treatment of surface infections* of wounds, severe burns, cutaneous ulcers, pyodermas, skin grafts and bacterial otitis.

Literature on request.

EATON LABORATORIES, INC., NORWICH, NEW YORK

*Cushley, W. et al.: Plast. & Reconstruct. Surg. 3:467, 1948 • Curtis, L.: Surg. Clin. N. A. 1469 (Dec.) 1947 • Downing, J. et al.: J.A.M.A. 139:299, 1947 • Hardin, C. et al.: J. Kansas M. Soc. 50:126, 1949 • Johnson, R.: Arch. Dermat. & Syph. 57:548, 1948 • Mayo, J.: J.M.A. Georgia 36:302, 1947 • McCullough, N.: Indust. Med. 16:156, 1947 • McDowell, A.: Ann. West. Med. & Surg. 3:381, 1949 • Mills, J. et al.: Plast. & Reconstruct. Surg. 3:545, 1948 • Reyn, Y.: U. S. Nav. M. Bull. 47:901, 1947 • Shipley, R. et al.: Surg., Gynec. & Obstet. 84:368, 1947 • Snyder, M. et al.: Mil. Surgeon 97:380, 1945.

FURACIN SOLUBLE DRESSING • FURACIN SOLUTION • FURACIN ANHYDROUS EAR SOLUTION

See it-try it

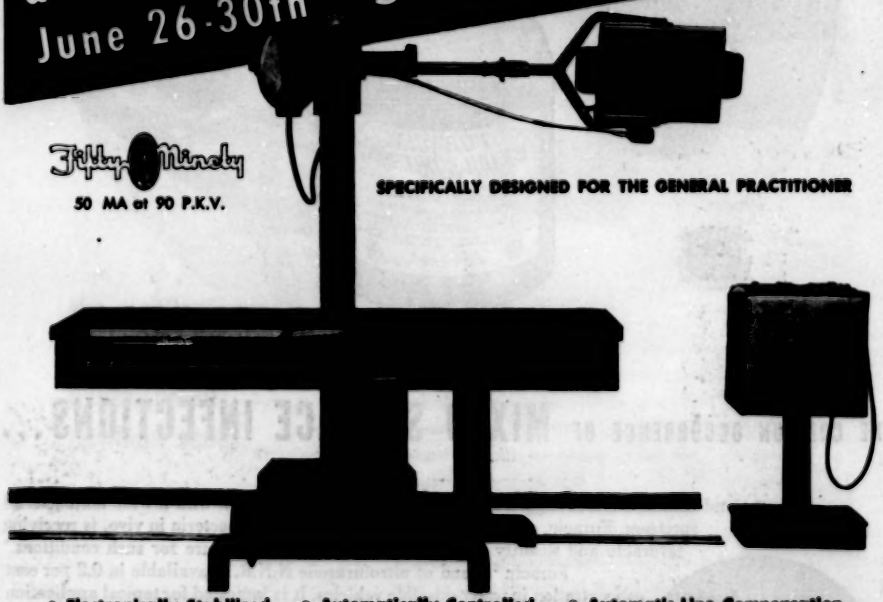
BOOTHS N-9 AND N-11

at the AMA Convention
June 26-30th San Francisco

Fitzpatrick Mineley

50 MA at 90 P.K.V.

SPECIFICALLY DESIGNED FOR THE GENERAL PRACTITIONER



- Electronically Stabilized
- Automatically Controlled
- Automatic Line Compensation
- Pre-set Milliamperes
- Electronically Timed
- Fluoroscopic Screen 12" x 16"

Inspect this economical X-ray apparatus—check its flexibility, compactness and ease of operation. This is BORG warranteed equipment . . . engineered to meet modern diagnostic demand at a modest cost . . . that maintains BORG's eminent quality!

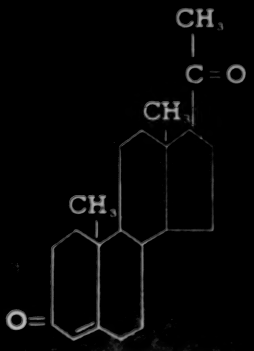
$1995.00

F.O.B. DELAVAN, WISCONSIN

BORG X-RAY APPARATUS THE GEORGE W. BORG CORPORATION

The George W. Borg Corporation

COUNCIL-ACCEPTED



Progesterone

LINCOLN

It is a singular honor to Lincoln Laboratories to announce the Council Acceptance of our Aqueous Suspension of Progesterone.

It is a marked advantage to you to have available for use a product of recognized purity and potency (in a water suspension) for prolonged therapeutic effects, — where the hormone is indicated.

We recommend your trial of our Progesterone in Aqueous Suspension. Please write for literature and samples, or mail order for it in 10cc multiple-dose vials. It is economical to use at 2¢ per cc in 40cc purchased amounts.

L. L.

In studies among menopausal patients:*

1. an average incidence of side effects of *less than 1%.*
2. uterine bleeding infrequent during therapy or on withdrawal.

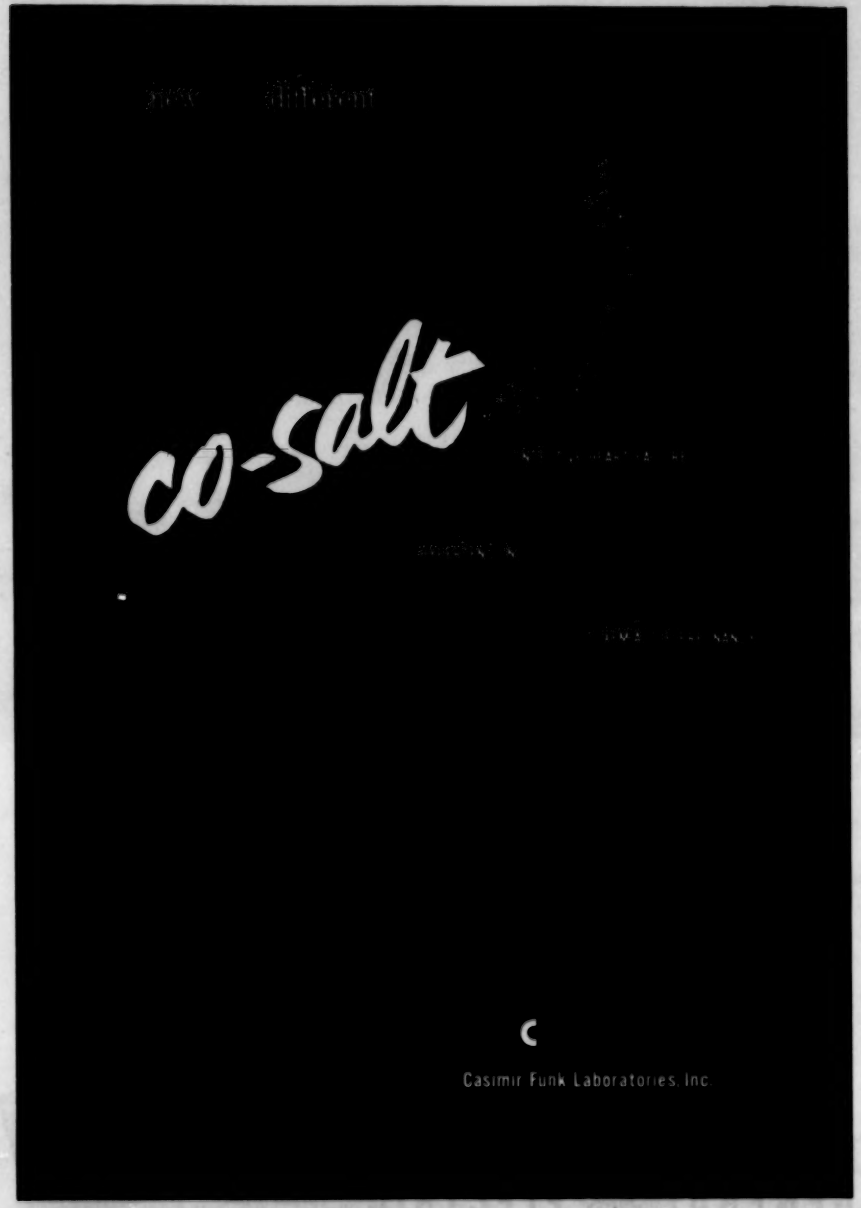
White's **DIENESTROL**

(Tablets . . . also Aqueous Suspension)

a most inexpensive estrogen.

*Extensive bibliography on request.

WHITE LABORATORIES, INC., NEWARK 7, N. J.


co-salt
C
Casimir Funk Laboratories, Inc.

WHAT THEY ARE—WHAT THEY DO

- G-E Germicidal Tubes kill 95% or more of the germs in the air through which the energy passes.
- Because germicidal energy may irritate human eyes and skin, G-E Germicidal Tubes must be used in properly designed and correctly installed fixtures. Usually the tubes are placed to disinfect the area above eye level of a room.
- The number of germs in the air is reduced as disinfected air from upper areas circulates down to breathing areas. Ultraviolet energy cannot prevent respiratory infections being spread by close contact.
- The Council on Physical Medicine and Rehabilitation of the American Medical Association has accepted G-E Germicidal Tubes for air disinfection in nurseries, wards and operating rooms in hospitals.

IT'S a special kind of glass, to be sure. The ultraviolet energy generated within it can pass through this glass to destroy germs in the air outside. It looks like a clear fluorescent tube, but actually it is a General Electric Germicidal Tube.

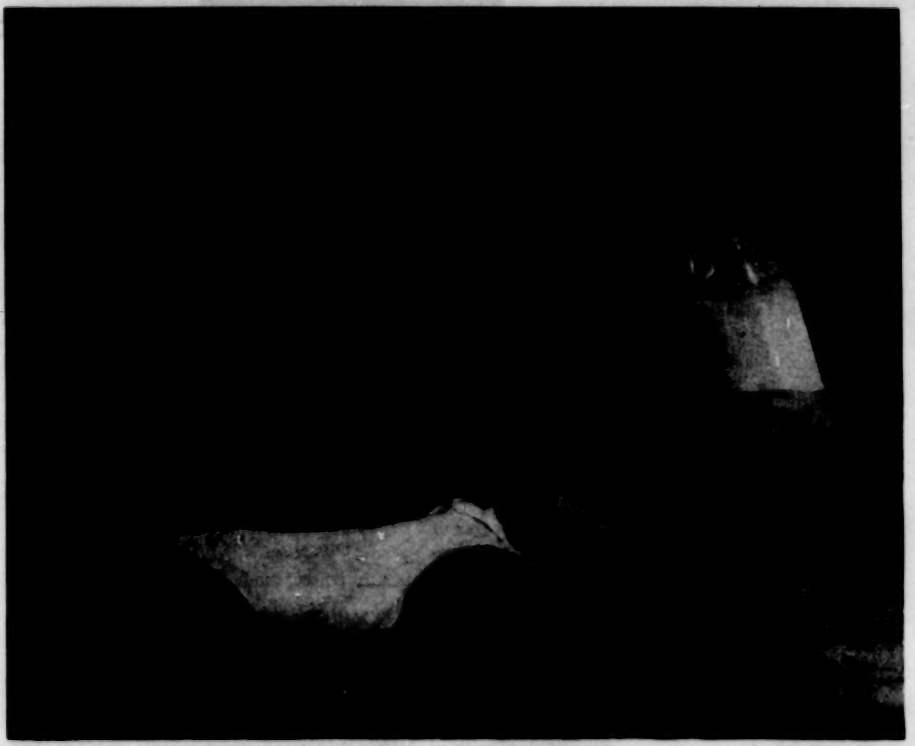
G-E Germicidal Tubes kill at least 95% of the bacteria and viruses in the air exposed to their ultraviolet energy. Thus they help make the air safer to breathe.

Many hospitals are using these new G-E Germicidal Tubes to help protect patients in nurseries, wards and surgeries against the spread of respiratory cross infections.

FREE BOOKLET

Write for booklet, "Air Sanitation". Address General Electric Company, Nela Park, Dept. 166-AMM, Cleveland 12, Ohio.

GENERAL ELECTRIC



Medical Authorities† Know This Fact:

NO DOCTOR CAN RECOMMEND ANY BETTER EVAPORATED MILK FOR INFANT FEEDING

1. WHITE HOUSE MILK comes exclusively from tested dairy herds.
2. Processing of the milk is rigidly controlled under the most modern and sanitary conditions at the spotless White House Milk plants.
3. Many thorough quality and laboratory tests are made before acceptance of the raw milk, at each stage of production, and after sterilization.
4. Repeated analyses of uniformity, sterility and Vitamin D adequacy insure that White House Milk conforms to the very highest quality standards.

†This statement is accepted by the American Medical Association's Council on Foods and Nutrition.

WHITE HOUSE MILK

There's None Better

400 U.S.P. Units of Pure Crystalline Vitamin D_2 Per Pint
Satisfaction Guaranteed by A&P or Your Money Back

*Not Connected With Any Company Using a Similar Name or Brand

A New Cholinergic Drug

Stigminene* Bromide 'Warner'

(Benzpyrinium bromide)

effective remedy for

Postoperative Abdominal Distention

and

Urinary Retention

• **Stigminene* Bromide 'Warner,'** a new cholinergic compound, stimulates and enhances the peristaltic activity and tone of the smooth musculature of the intestinal tract and urinary bladder.

• **Stigminene* Bromide 'Warner'** is indicated in the prevention or treatment of postoperative intestinal and bladder atony, abdominal distention, paralytic ileus, and urinary retention.

• **Stigminene* Bromide 'Warner'** will be found an adequate and satisfactory means for providing cholinergic action in the experimental therapy of myasthenia gravis and other disorders in which experimental cholinergic therapy is deemed advisable.

PACKAGE INFORMATION: Stigminene* Bromide 'Warner' is available in 1-cc ampuls of a 1:2000 solution, 0.5 mg each, for intramuscular or subcutaneous injection, cartons of 12 and 50 ampuls.

* TRADEMARK

WILLIAM R. WARNER & CO., INC. NEW YORK .... ST. LOUIS

a newly accepted therapy

Mounting clinical evidence, now accepted by the Council on Pharmacy and Chemistry of the American Medical Association, continues to support the claims made for the efficacy of Resinat. The most recent studies, for example, demonstrate that complete symptomatic relief occurs in from 48 to 72 hours and is accompanied by regression of the ulcer crater in from two to four weeks, as seen in most of the 120 patients treated with Resinat.[1]

Resinat acts as an adsorbent which effectively neutralizes excess gastric acidity. It does not cause constipation nor does it produce acid rebound or other objectionable side effects.

Resinat is available in Capsules (0.25 Gm.), Tablets (0.5 Gm.), Powder (1 Gm.).

1. Weiss, S., Espinal, R. B. & Weiss, J.: Therapeutic Application of Anion Exchange Resins in the Treatment of Peptic Ulcer, Review of Gastroenterology, 16:501-509, June, 1949.

Literature and samples available

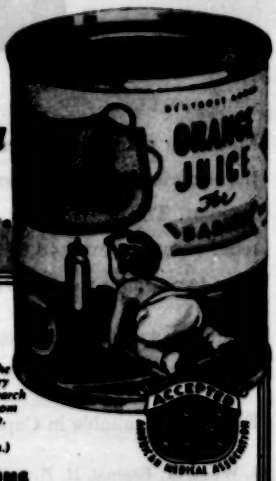
THE NATIONAL DRUG COMPANY,
More than Half a Century of Service

PHILADELPHIA 44, PA.
to the Medical Profession

here are

6 GOOD REASONS

why doctors recommend



1. BIB GUARANTEES NATURAL VITAMIN C CONTENT

BIB guarantees a Vitamin C content in excess of 40 milligrams/100 cc. It is the only orange juice fresh, canned or frozen, that now makes this guarantee. Thus, each four ounce can of BIB contains more than the daily allowance of NATURAL Vitamin C (National Research Council) for children to 6 years of age. Oranges for BIB are scientifically selected for richness in Vitamin C and BIB supplies the other vitamins and nutrients of orange juice as well.

Guaranteed by BIB Corporation to contain 40 mg of natural Vitamin C per 100 cc of juice. Each can supplies the recommended daily dietary allowance (National Research Council) of all children from infancy to six years of age. (Each batch checked by government inspectors.)

2. BIB CONTROLS FLAVOR

A constant Brix/acid ratio (relationship between solids and citric acid), is laboratory controlled with minimal addition of dextrose and *standardizes* the flavor of each can of BIB. Baby's taste habits are not upset; he does not rebel from one feeding to the next. Your recommendation of BIB helps to insure the constancy of the diet you prescribe.

3. BIB REDUCES TROUBLESOME PEEL-OIL CONTENT

Indigestible peel-oil content is reduced to a "negligible trace" due to an exclusive BIB process. Babies will more easily retain BIB, eliminating in most cases, the necessity for prescribing ascorbic acid tablets.

4. BIB MAINTAINS ESSENTIAL SOLIDS, YET FLOWS FREELY

BIB reduces pulp to minute particles retaining the nutritive value of essential solids and at the same time, assures a juice that is free flowing—even through ordinary bottle nipples.

5. BIB IS PASTEURIZED—PROTECTED FROM OXIDATION LOSS

Flash-pasteurization inhibits bacterial growth, but retains essential Vitamin C potency. Hermetically sealed in sterilized, lightproof containers, BIB'S flavor and vitamin potency is fully protected from loss through exposure to air.

6. BIB IS ECONOMICAL AND TIME SAVING FOR MOTHERS

No preparation needed . . . Mothers—just open, pour and feed. The four ounce container is just right for *an average single feeding*, eliminating waste and the risk of bacterial invasion of left-over juice.

Certified reports of quality and Natural Vitamin C content are in the files of U.S. Dept. of Agriculture and A.M.A. Council on Foods and Nutrition.

THE BIB CORPORATION

LAKELAND FLORIDA

SEE YOU IN 'FRISCO!

Convention time is just about here!

Soon you will dive into the center of the convention whirlpool, deluged with too many interests, beset by too little time.

Yet, with your patients' welfare constantly in mind, you will be seeking new insights on medical problems by selecting the meetings and exhibits you particularly want to attend.

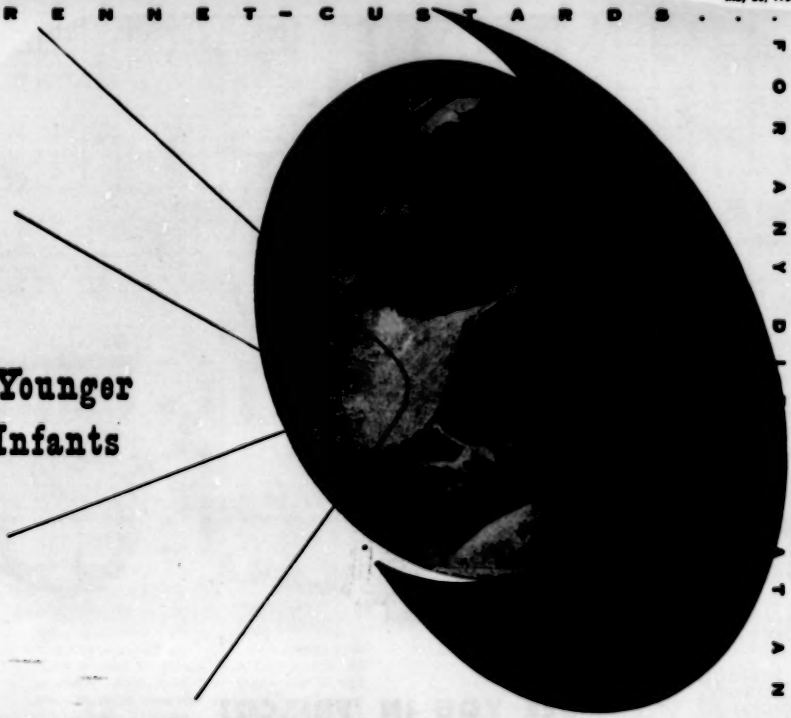
We hope you will include a visit to I. V. C. in Exhibit Space C-27.

INTERNATIONAL VITAMIN DIVISION

IVES-CAMERON COMPANY, INC.

22 EAST 40th STREET **NEW YORK 16, N. Y.**

R E N N E T - C U S T A R D S . . . F O R Y O U N G E R I N F A N T S



Younger Infants

Rennet-custards, made from uncooked milk with "Junket" Brand Rennet Powder or Tablets, are among the first desserts advised by pediatricians for young infants. These delicious, eggless milk desserts, more easily digested than milk itself, help to cater to the younger infant's developing preference for solid foods—thus permitting early spoon feeding of a pleasing new texture in a desirable variety of flavors and colors. Quickly prepared, and in no way changing the nutritive values of uncooked milk, rennet-custards afford a welcome diversity to, and heightened interest in, this all-important food for the younger infant. Mothers will appreciate your specific recommendation on your Diet Lists.

"JUNKET" BRAND FOODS

DIVISION

Chr. Hansen's Laboratory, Inc.

LITTLE FALLS, N. Y.

E-20-550

Untreated Milk—showing coarse, tough curds, often hard to digest.

Rennet Dessert Curds—milk with rennet added, showing fine, readily digested curds.

"Junket" Rennet Powder—sweetened, six flavors.
"Junket" Rennet Tablets—unsweetened, unflavored (particularly for very young infants and diabetics).

"JUNKET" is the trade-mark of Chr. Hansen's Laboratory, Inc. for its rennet and other food products.

+ POINTS

+ Relieves menopausal symptoms — "quickly and thoroughly." [1]
+ Cardiovascular and psychic symptoms relieved. [1]
+ Economical.

— POINTS

— Tasteless

— Odorless

— Unpleasant reactions—virtually unknown. [2]

Dosage: Initial therapy 1 (1 mg.) tablet t.i.d. after meals; maintenance therapy, 1 to 2 tablets daily.

Packaging: 30, 100, 500 and 1000.

Reed & Carnrick
JERSEY CITY 6, N.J.

BIBLIOGRAPHY

1. Lin, H. A. C.: Am. J. Obst. & Gyn. 54:296, Aug. 1947.
2. Sturgis, S. H.: Am. J. Obst. & Gyn. 53:678, April 1947.

Meprane®

DIPROPIONATE TABLETS
BRAND OF PROMESTRIOL DIPROPIONATE

FOR MENOPAUSAL WELL-BEING

© REED & CARNRICK 1950

See Us at Booth No. A-15 at the San Francisco Session

Beyond the Shadow of a Doubt

You can be positive your prescription is *compounded to perfection* at Walgreen's. Your Walgreen Pharmacist is deservedly proud of his record . . . his *earned reputation for care, accuracy, skill.* The trust you of the medical profession place in him is his hourly challenge to maintain the very highest standards of pharmaceutical service. You can depend on your Walgreen Pharmacist . . . he stands always ready to serve you with the *best* quality drugs . . . *best* quality performance . . . *beyond the shadow of a doubt.*

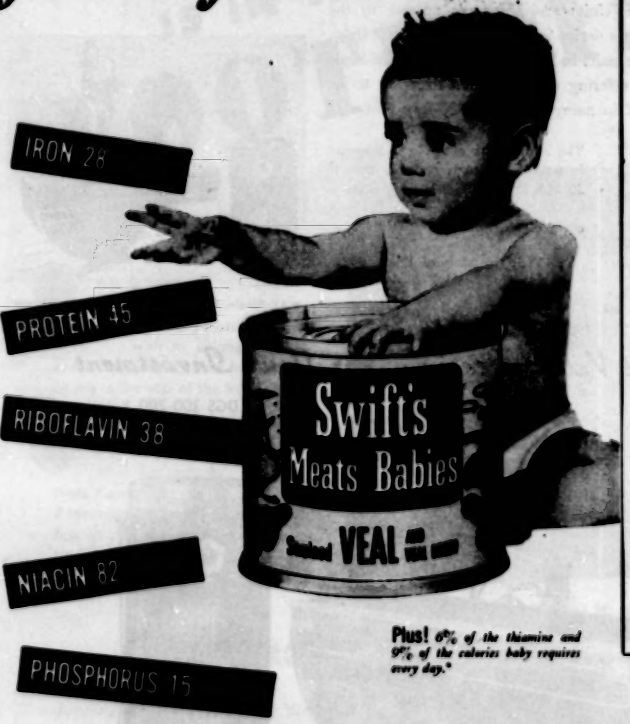
Walgreen

DRUGS WITH A REPUTATION—THROUGHOUT THE NATION

An average can of

SWIFT'S STRAINED VEAL

gives baby all this!



Plus! *6% of the thiamine and 9% of the calories baby requires every day.**

Baby's limited capacity demands that foods in his diet be qualitatively and quantitatively high in essential nutrients. Meat is such a food. That's why so many doctors recommend a daily serving of Swift's Meats for Babies early in life.

Excellent Protein Source

All Swift's Meats for Babies offer an excellent source of complete, high-quality proteins, B vitamins and iron. These nutrients are all required by infants in optimum amounts every day.

Six Meats for Variety

To help establish nutritionally sound eating habits, Swift offers a complete variety—in either Strained or Junior form—beef, lamb, pork, veal, liver, heart. All six, 100% meat, are trimmed to reduce fat content to a minimum. All are carefully cooked, conveniently ready to serve.

*3½ ounces, approximately 100 gm. per can.

All approximate percentage figures above based on Recommended Dietary Allowances of National Research Council for an infant under one year, except figure for phosphorus, which is based on U. S. Food and Drug Minimum Daily Requirement for a one-year-old baby. Note: Protein percentage applies for infant under one year weighing 22 pounds. The above figures will necessarily vary according to natural variances in meat.

All nutritional statements made in this advertisement are accepted by the Council on Foods and Nutrition of the American Medical Association.

Current Clinical Meat Feeding Studies

REPORT No. 6

EFFECT OF STRAINED MEAT IN THE DIETS OF PREMATURELY BORN BABIES

In this research, the effect of meat on the hemoglobin concentration, erythrocyte count, weight gains, and serum protein values of prematurely born infants is being investigated. Other factors that develop in the course of the study will be analyzed as to their value to infant nutrition.

This study is part of an extensive clinical research program now being conducted through grants-in-aid made by Swift & Company.

SWIFT... foremost name in meats

...first to develop and clinically test 100% Meats for Babies

MATTERN

X-RAY APPARATUS TO SUIT YOUR NEEDS

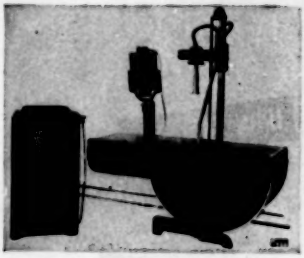
The originators of Push Button Control on X-Ray Apparatus

These Units are Mattern's answer to the doctor's desire for low priced complete diagnostic units in his own office and at the same time offering more features than are to be found in many low priced X-Ray units.

The Mattern line of X-Ray Equipment is complete from a portable unit to 200MA and Therapy Units. There is a Mattern-X-Ray Unit to fit your every requirement.

Visit the Mattern Booths
F-27 and F-29

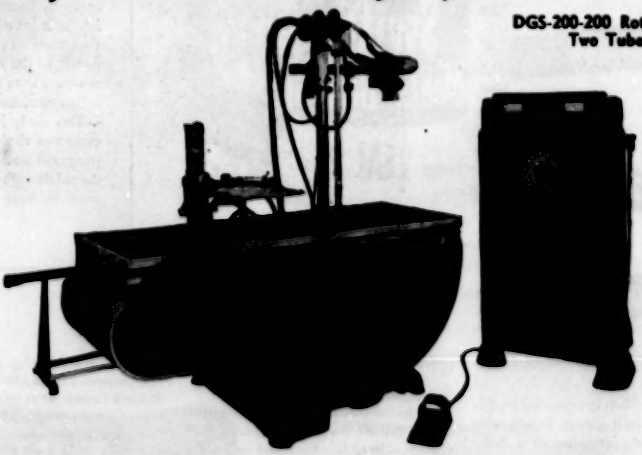
SBF-Junior Combination Radiographic and Fluoroscopic X-Ray Unit



HX: Single Tube Hand Tilt or Motor Driven Table Unit

Quality and Value Received for Your Investment

DGS-200-200 Rotating Anode Two Tube Unit



"Mattern" the first to introduce PHOTO TIMING for Spot Film Radiographs again is one of the first to present to the Radiologist the ultimate in photo timing.

This Ultra Modern method of controlling X-Ray exposures is now obtainable, not only for Miniature Film and Spot Film technique but also for Bucky, non Bucky Radiography and all technique involving use of a Cassette Changer. Examine this Unit at your next Meeting in San Francisco - June 26 - 30.

F. MATTERN MFG. CO. 4637-59 N. CICERO AVE.
CHICAGO 30, ILLINOIS

THE PROOF IS IN THE FOOTPRINT

● This is the way a brand-new Jumping-Jack child's shoe looks before it's ever been worn . . . with its unique, patented "all-in-one" sole from tip of toe to the top of the heel!

● Now here's the same shoe, after *six months'* wear. Note the area about the arch—it looks almost brand-new, proving the child is walking properly and forming his own arch!

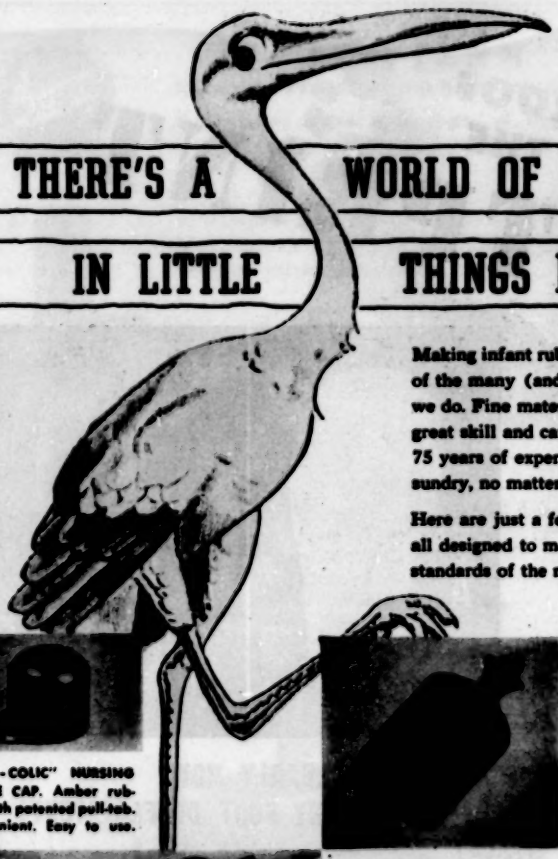
THESE TWO PICTURES SHOW CLEARLY HOW JUMPING-JACKS FOSTER HEALTHY FOOT DEVELOPMENT!

Jumping-Jacks' special design provides the necessary amount of gentle, firm support for active, young feet—without artificial restraint from stiff counters or shanks. Jumping-Jacks' unique, patented one-piece sole and heel encourages natural growth of healthy muscles—by helping keep feet in proper position. The proof's in the footprint . . . *natural, healthy development* with Jumping-Jack shoes!

JUMPING-JACKS®
FLEXIBLE SHOES FOR HARD WEAR

VAISEY-BRISTOL SHOE COMPANY, INC.—ROCHESTER 3, NEW YORK
MONETT, MISSOURI • SKOWHEGAN, MAINE • MARIONVILLE, MISSOURI
MADE IN CANADA BY THE SAVAGE SHOE COMPANY, LTD., PRESTON, ONT.

THERE'S A WORLD OF COMFORT IN LITTLE THINGS BY DAVOL!



Making infant rubber accessories is only one of the many (and most satisfying!) things we do. Fine materials and workmanship, great skill and care and our more than 75 years of experience go into every rubber sundry, no matter how tiny it is.

Here are just a few Davol specialties—all designed to meet the specifications and standards of the medical profession.

"ANTI-COLIC" NURSING BOTTLE CAP. Amber rubber with patented pull-tab. Convenient. Easy to use.

To take care of pint-size aches and pains—INFANT HOT WATER BOTTLE . . . Pint-size.

Famous ANTI-COLIC* BRAND NIPPLES in two popular types, "Soni-Tab" and Dual-Purpose†.

UMBILICAL BELT—made with Davol skill. Amber "Pure-gum."

BREAST SHIELD—scientifically designed; made of amber rubber.

INFANT TRUSS in English pattern. Single and double. Made of amber "Pure-gum."

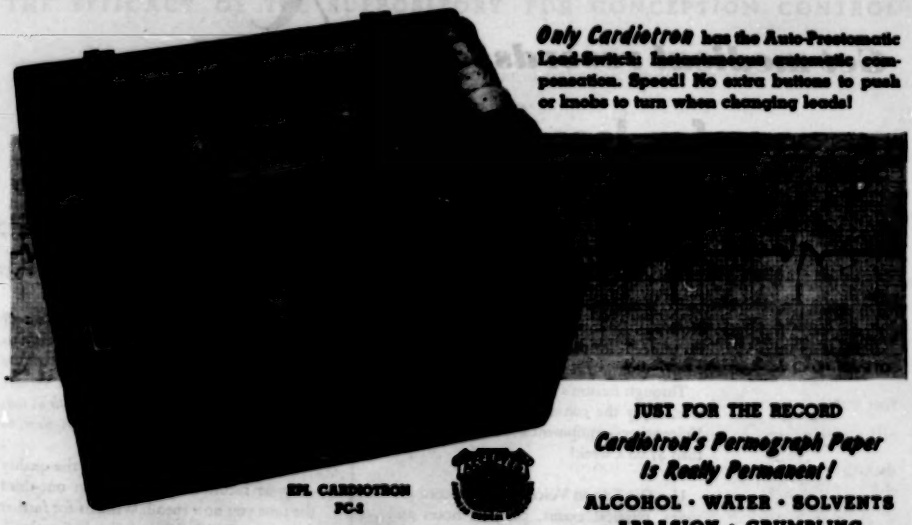
DAVOL RUBBER COMPANY Providence 2, R. I.

*Reg. U. S. Pat. Off.
†Registration applied for

15 LEADS IN 1 MINUTE . . . NO CHANGING ELECTRODES

Cardiotron

A Great Advancement in Electrocardiographs — Produced After 12 Years of Electronic Research!



Only Cardiotron **has the Auto-Prestomatic Lead-Switch: Instantaneous automatic compensation. Speed! No extra buttons to push or knobs to turn when changing leads!**

EPL CARDIOTRON PC-8

JUST FOR THE RECORD

Cardiotron's Permograph Paper Is Really Permanent!

ALCOHOL • WATER • SOLVENTS
ABRASION • CRUMPLING

Won't Hurt the Record

NO INK TO BLUR — NO WAX TO FLOW

Weighs Just 30 Lbs. Complete — *A Portable That's Portable!*

Stability with Built-In Voltage Regulator
No Distortion due to powerline interference

CARDIOTRON TAKES CARDIOGRAMS - ANYWHERE • ANYTIME!

In Your Office **— Ready to work instantly — Complete cardiograms in 5 minutes!**

Patient's Home **— The portable that's no trouble to carry! Weighs just 30 lbs.**

Heart Station Cardiography **— Proved in examination of a group of over 5,000 persons.**

Hospitals **— Effects of surgery and anesthesia instantly visible. ½ hour continuous recording! Automatic time marking at 1-second intervals.**

Other fine instruments from EPL's Research Laboratories

ELECTROENCEPHALOGRAPHS • THE CARDIOSCAN
TRAUGOTT ANALYZER • THE 4-CHANNEL CARDIOTRON

Originators of Direct-Recording Electrocardiographs

ELECTRO-PHYSICAL
Laboratories, Inc.

ELECTRO-PHYSICAL LABORATORIES, INC.
720 Milton Road, Rye, N. Y.

Please send comprehensive literature, sample of Permograph Paper, and name of my CARDIOTRON dealer.

Name _____ **M.D.**

Address _____

City _____ **Zone** ____ **State** _____

Rx

Get medical records fast, unfailingly

for less than $7.00 a week!

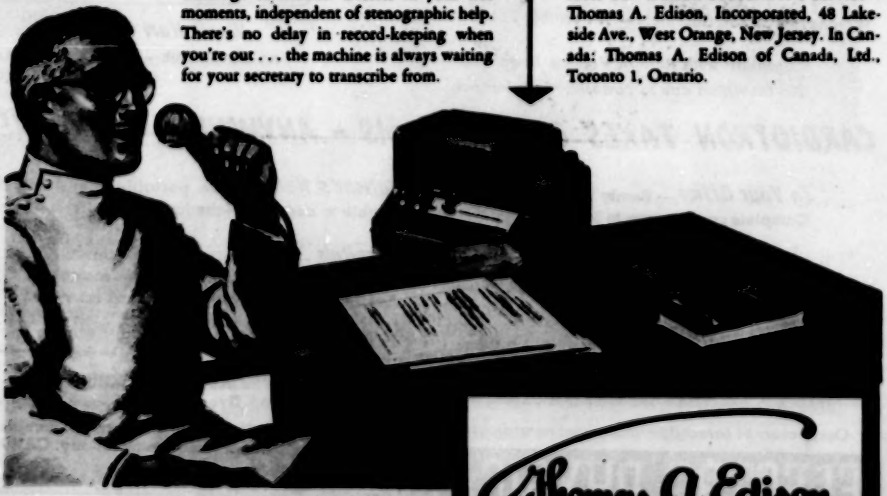
Now . . . Edison gives you the benefits of instrument dictation *at new low cost!*

Through Edison's special Subscriber's Service, enjoy the convenience of *Dictet* Edison Voicewriter—equipment and service—for less than $7.00 a week!

Use *Dictet* Edison Voicewriter to record histories, physical exams, progress notes and discharge summaries. Dictate in your free moments, independent of stenographic help. There's no delay in record-keeping when you're out . . . the machine is always waiting for your secretary to transcribe from.

Dictet Edison Voicewriter is the simplest of all dictating instruments to use . . . easy to use as your telephone. And—with *exclusive* Ear-Tuned Jewel-Action—Edison Voicewriter is the *one* instrument that is *both* as *convenient* as machine dictation and as *clear* as direct dictation.

Find out how you can increase the quality of your record-keeping 100% in one-third the time you now spend. Write us for further facts on "Edison Subscriber's Service". Thomas A. Edison, Incorporated, 48 Lakeside Ave., West Orange, New Jersey. In Canada: Thomas A. Edison of Canada, Ltd., Toronto 1, Ontario.



Thomas A Edison

V
19

when pregnancy is contraindicated . . .

A COMPARATIVE STUDY

THE EFFICACY OF THE SUPPOSITORY FOR CONCEPTION CONTROL

"... surely mass studies on the diaphragm have not shown greater efficacy than is reported in this paper by simpler procedures."*

Lorophyn® Suppositories (N.N.R.) contain phenylmercuric acetate 0.05% and glyceryl laurate 10% in a water-dispersible, self-emulsifying, synthetic wax base. Hermetically sealed in foil, they will not leak in hot weather.

The Baltimore Study.

Studies of the efficacy of Lorophyn Suppositories in a Baltimore clinic revealed that this method produced a total rate of *16.2* pregnancies per 100 woman-years of exposure to the opportunity of becoming pregnant. This rate was compared to some reported in the literature with diaphragm and jelly: 12, 15, 18 and 33.

The South Carolina Study.

In State post-natal and syphilis clinics, the effectiveness of the simple Lorophyn Suppository technic was found to be comparable to the Baltimore results.

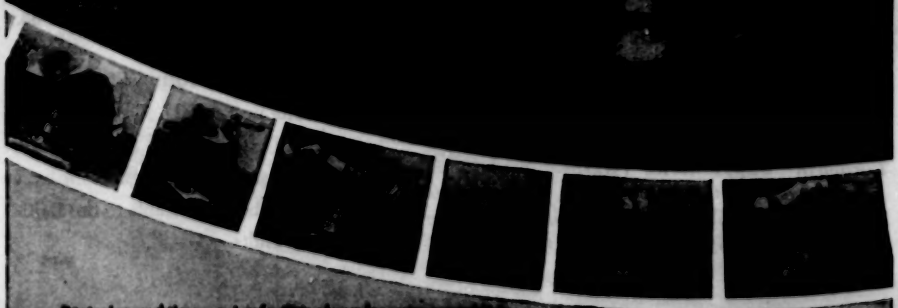
* Eastman, N. J. & Seibels, R. E.: *The Efficacy of the Suppository and of Jelly Alone as Contraceptive Agents*, J. A. M. A. 139:16 (Jan. 1) 1949. **Reprint on request.**

EATON LABORATORIES, INC., NORWICH, N. Y.

When a jelly is preferred—**LOROPHYN JELLY (N.N.R.)** also contains the powerful spermicide: phenylmercuric acetate 0.05%, and polyethylene glycol of mono-iso-octyl phenyl ether 0.3%, methyl p-hydroxy benzoate 0.05% and sodium borate 3% in a special jelly base.

Universally Acclaimed-

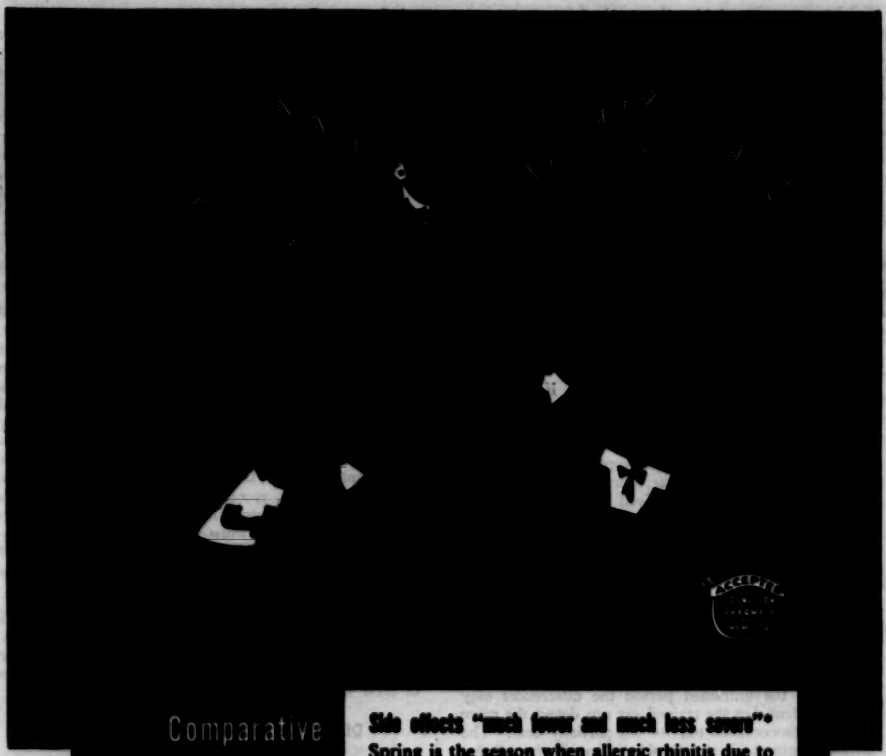
AMERICAN



Posturing and time-saving features have [illegible] of the pre-eminent position of American [illegible] Surgical Operating Tables...the pioneers of [illegible] for physiological and economical changes of posture, before or during the operation, without disturbing the surgical team. [illegible] for detailed information.

AMERICAN STERILIZER [illegible]
Erie, Pennsylvania

DESIGNERS AND MANUFACTURERS OF SURGICAL STERILIZERS, TABLES AND LIGHTS



Comparative studies at various dosage levels show:

Side effects "much fewer and much less severe"*

Spring is the season when allergic rhinitis due to grass and tree pollens occurs, often simulating or aggravating the common "cold." For relief of catarrhal symptoms due to allergy, more and more physicians rely on

NEOHETRAMINE®

Hydrochloride

as their first choice in antihistaminic therapy, because it is effective and exceptionally well-tolerated.

INDICATED in allergic rhinitis and allergic dermatoses.

*Schwartz, L.: Ann. Allergy 7:770 (Nov.-Dec.) 1949

Neohetramine is the registered trademark of the Nepera Chemical Co., Inc., for its brand of Thenylamine—N, N-dimethyl-N' p-methoxybenzyl-N' (2-pyrimidyl) ethylenediamine.

Wyeth

TABLETS	SYRUP	CREAM
25 mg.—Packet of 12, vial of 24, bulkpack 100 and 1000. 50 mg.—Bottles of 100 and 1000. 100 mg.—Bottles of 100 and 1000.	6.25 mg. per cc.—Pints and gallons.	Contains Neohetramine 2%. —Tubes of 1 oz.

Wyeth Incorporated • Philadelphia 3, Pa.

(Advertisement)

PSYCHOSOMATIC ASPECTS OF HEARING DEFECTS

Effects of Hearing Loss on Mental Processes

Number 5 of a Series

A defect in hearing initiates emotional and practical problems which profoundly affect the individual's attitude toward himself and society. In turn his handicap influences the way people act toward him. Some aspects of this complex problem are briefly discussed in this time-saving refresher for the busy practitioner.

DEAFNESS OR STUPIDITY?

For centuries deafness and stupidity, if not actual feeble-mindedness, have been linked together in the public mind. This is one of the cruelest misconceptions the uninformed have concerning the deaf. Inability to understand the spoken word was—and is—so great a handicap in social intercourse that it was misinterpreted as mental lack. Even the hard-of-hearing suffered—and still suffer—from this ignorant viewpoint for little differentiation is made in common thought between those who are without the ability to hear the slightest sound and those who have residual hearing in greater or lesser degree.

Perhaps some of the misunderstanding, at least where children are concerned, has arisen because the speech pattern of the hard-of-hearing, especially those with high-tone loss, resembles that of mental retardation.[1] To the untrained person the differences may not be evident, but the trained ear can detect the more level and monotonous tone of the partially deaf. The physician must be alert to avoid the tragic consequences of classifying as mentally retarded the child of normal intelligence.

UNCORRECTED HEARING DEFECTS MAY RESULT IN MENTAL RETARDATION

There is some basis for the belief that there is a connection between mentality and hearing. Best [2] has described it well: "With the deaf, particularly with those born deaf or becoming so in the earliest years of life, to whom is denied the spoken and heard word as a medium of communication with the outside world, the mind is held back; its processes are slowed up; it must perforce remain, as it were, in chains till special means of liberation are brought. The deaf are not only without stimulus of the human voice, but also without the language which is afforded through the avenue of normal and regular speech, and upon which human thought is so largely dependent."

This is applicable to any child whose hearing defect is at all extensive. If no attempt has been made to aid his hearing by mechanical means, or to give him special instruction, he enters school on the level of normal infancy, unaware not only of the meaning of words, but even that objects or qualities have names.[3] No wonder then that the child seems retarded. Indeed, this lack of ability to communicate freely affects adversely his ability to make normal progress at school.[3, 4]

Hearing defects, too long ignored, may actually lead to emotional deficiency resulting in inability to hear. Morkovin [5] cites such an instance in a congenitally deaf boy, who was neglected until late in adolescence. In this case there was residual hearing which, it was found, could be raised to a hearing level by mechanical means. Alas, this aid came too late. Speech was only noise, he could not give meanings to sounds. He continued to communicate in his small circle by means of grunts and signs. "He never grew out of the infantile level intellectually, emotionally, or socially. He was not born feeble-minded, but he actually became so because he failed to learn and develop mentally by deprivation. Because of his isolation he was reduced to an animal state in a civilized community, a human derelict."[5]

One wonders how many children with hearing defects are mistakenly considered feeble-minded, how many with hearing defects *become* feeble-minded, because they lack proper attention in the early formative years of their lives.

DIAGNOSE HEARING DEFECTS EARLY

The problem of the hard-of-hearing child is of the first importance, if these handicapped youngsters are to develop into well-adjusted individuals, self-supporting and useful. Early diagnosis is essential in the case of the very young child, for often those assumed to be totally deaf have islands of hearing which may be stimulated,[6] and the best stimulus is the human voice.[7]

Diagnosis of hearing defects in the very young may be difficult.[6] The common test—a reaction to noise—is not satisfactory for the tactile sense may respond with misleading results.[6]

The problem is one in which the parents should receive the cooperation of teachers, social workers, psychologists as well as physicians.[6] All must be aware that "the sooner deafness is recognized, the better the chance for the individual to grow into a normal human being."[6]

1. Sheridan, Mary D.: The Child's Hearing for Speech. Methuen & Co. Ltd., London, 1948, p. 29.
2. Best, Harry: Deafness and the Deaf in the United States. The Macmillan Co., New York, 1943. Chap. 12.
3. Ewing, I. R. and Ewing, A. W. G.: The Handicap of Deafness. Longmans, Green & Co., London, 1938, Chap. 1.
4. Best, Harry: Idem. Chap. 19.
5. Morkovin, B. V.: Psychological Basis for Auricular Training and Speech Reading of the Acoustically Impaired. In Aural Re-Education: Psychological and Therapeutic Aspects. Hearing Survey Quarterly, 1946, pp. 1-35.
6. Kinkade, J. M.: The Need of a Combined Program of Medical, Educational, Psychological and Vocational Rehabilitation of the Acoustically Impaired. In Aural Re-Education: Psychological and Therapeutic Aspects. Hearing Survey Quarterly, 1946, pp. 36-40.
7. Barnett, H. N.: M. Press. **216**: 174 (Sept. 4) 1946.

SONOTONE CORPORATION

ELMSFORD, NEW YORK

The psychosomatic series will be reprinted as a booklet; your postcard request now will bring it to you on publication

LYOVAC *Plasma effectively restores circulating blood volume.*

PLASMA post-op.

. . . with **LESS RISK**

SHARP & DOHME

Infusion of plasma is part of the preferred routine during and following many major surgical procedures. But, like whole blood, plasma may be contaminated by a virus that will produce hepatitis, and of course pooling greatly increases this possibility. LYOVAC Plasma, however, has been subjected to ultraviolet irradiation, according to the method successfully used by Blanchard and others (J.A.M.A. *138*:341, 1948) to inactivate the virus. Based on the results of this study it would appear that the danger of a recipient acquiring homologous serum hepatitis is obviated. Stable without refrigeration, LYOVAC Normal Human Plasma (Irradiated) is supplied desiccated in vacuum bottles to yield 50 cc., 250 cc., and 500 cc. of fully potent plasma (660 mg. of *gamma globulin* per 100 cc.), or smaller quantities of *hypertonic* plasma.
Sharp & Dohme, Philadelphia 1, Pa.

LYOVAC® NORMAL HUMAN PLASMA

(IRRADIATED)

PERITONITIS: what's the risk?

Careful enteric surgical technics have lowered the risk of peritonitis greatly; preoperative administration of SULFASUXIDINE *reduces it even further, and postoperative use of this highly efficient bacteriostat speeds and simplifies convalescence.*

Description: Relatively nontoxic; only 5% absorbed into blood; rapidly excreted by kidneys. Maintains high bacteriostatic concentration in bowel.

Indications: (1) Before enteric surgery, to minimize risk of peritonitis; afterward, to speed and simplify recovery. (2) Ulcerative colitis. (3) Bacillary dysentery, acute or chronic, including carrier state. (4) Combats urinary tract infection due to *E. coli*, by lowering enteric bacterial reservoir.

Dosage: Initial, 0.25 Gm./kilogram; maintenance, 0.25 Gm. kilogram/day, 6 doses, 4-hour intervals. Supplied in 0.5-Gm. tablets, bottles of 100, 500, 1,000, and (oral) powder, ¼ and 1-lb. bottles.
Sharp & Dohme, Philadelphia 1, Pa.

Sulfasuxidine.

succinylsulfathiazole

Now available—New Recipe Folder:
"Tested Recipes for Using Meyenberg Evaporated Goat Milk in Cooking"

For information, file cards, new recipe folders, write

Special Milk Products, Inc.
Los Angeles 64, California • Since 1934

BY THE MAKERS OF *Hi-Pro*—HIGH-PROTEIN, LOW-FAT POWDERED COW'S MILK

you buy FUNCTIONS!

When you need a new sterilizer, x-ray apparatus, or hypodermic syringe, you're not thinking in terms of just a piece of equipment or an instrument . . . you are interested in the sterilizer *service*, the x-ray *service* or the hypodermic *service* which the new equipment or instrument will provide. You are interested in *performance!*

That's what you buy . . . *functions.* And the cost of those functions depends upon the quality of the equipment and instruments you buy. The cost of hypodermic *service*, for example, depends not on the initial price of the syringe alone, but on how long that syringe stands up under constant use and repeated sterilization without need of replacement. For maximum service, and the savings which this service means to you, use a B-D hypodermic syringe.

YOU BUY HYPODERMIC SERVICE WHEN YOU BUY A B-D HYPODERMIC SYRINGE

B-D PRODUCTS
Made for the Profession

For best results, always use a B-D needle with a B-D syringe

BOSTON, DICKINSON AND COMPANY
RUTHERFORD, NEW JERSEY

- 30-milliampere Model with full sized 12" x 16" fluoroscopic screen and 121 steps of kilovoltage control—Price $1488.
- Radiography and fluoroscopy in both horizontal and vertical positions.
- Easy change from fluoroscopy to radiography, or *vice versa*, without moving patient from table.
- Standard Bucky diaphragm may be used.
- Models: 30, 50, 100, and 250 milliamperes.

H. G. FISCHER & CO., 9431-91 W. Belmont Ave., Franklin Park, Ill.
Please send, without obligation, full information on:
☐ FISCHER "Spacesaver" X-Ray Apparatus. ☐ 30 MA, ☐ 50 MA, ☐ 100 MA, ☐ 250 MA.
☐ Complete FISCHER line of X-Ray and Physical Therapy Equipment.
☐ Small Down Payment — Low Monthly Payments — INCOME - AS - YOU - PAY Plan.
☐ Free Scaled Floor Plan showing above Units in My Office.

Name AMA

Address City Zone State

H. G. FISCHER & CO.

9431-91 W. BELMONT AVE. - FRANKLIN PARK, ILLINOIS

Varicose Veins during Pregnancy

In estimating the value of support of the abdominal wall during pregnancy a prominent Obstetrician* states, among other items, the following: —

"By supporting the abdominal wall, it holds the growing uterus in place. Thus the feeling of weight and discomfort is lessened and, at the same time, interference with the return circulation from the lower extremities is diminished. Accordingly, edema of the ankles and varicosities occur much less frequently when a good maternity corset is worn."

• Patient 32 years old, gravida IX, para VII. Severe varicosities of both legs and vulva; noticed with first pregnancy, increasing with each succeeding pregnancy. Came to clinic when in seventh month of pregnancy.

• Same patient: No support worn in previous pregnancies. Patient states she has had some relief from varicosities since wearing the garment. Relief especially as regards tiredness; can go longer each day.

Education of mothers to see their physicians early in pregnancy is still sorely needed. Camp Supports are recommended by many Obstetricians.

* *Alfred C. Beck, M.D., Obstetrical Practice, Fourth Edition, Chapter IX, Page 181, Published 1947 by The Williams & Wilkins Company, Baltimore*

CAMP Supports

S. H. CAMP and COMPANY • JACKSON, MICHIGAN

World's Largest Manufacturers of Scientific Supports

Offices at: 200 Madison Ave., New York; Merchandise Mart, Chicago; Windsor, Ont.; London, Eng.

FOR THE EARLY DETECTION OF CERVICAL CANCER

An Important New Biopsy Technique

Designed by Saul B. Gusberg, M. D., of Columbia's College of Physicians and Surgeons—this new, amazingly simple instrument marks a significant step forward in the diagnosis of early cervical neoplasms. With the Gusberg curette... precision-built by J. Sklar Manufacturing Company of finest-quality, American-made stainless steel... a coning biopsy of the entire squamous-columnar junction may be quickly accomplished in one painless, easily performed, office procedure. No anesthesia or other special equipment required. Invaluable for tissue confirmation with the vaginal smear technique, or as a primary scouting method. Other Sklar Stainless Steel Instruments are also available for endometrial biopsies, etc. Reprints and descriptive literature forwarded on request.

J. SKLAR MANUFACTURING COMPANY
Long Island City, N. Y.

GUSBERG ENDOCERVICAL CURETTE
PATENT PENDING

All Sklar Products Are Available Through Accredited Surgical Supply Distributors

SKLAR

This Name Marks the Genuine Instrument

CHEN YU

Nail Lacquer

Accepted by the

COMMITTEE *on* COSMETICS

of the

AMERICAN MEDICAL ASSOCIATION

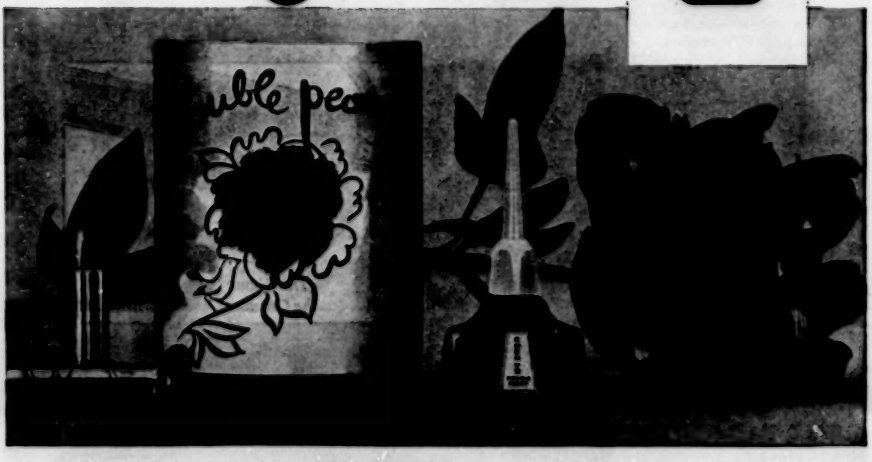
The Committee on Cosmetics of the American Medical Association, in awarding its seal of acceptance to Chen Yu Nail Lacquer, indicates that it finds this product meets the same high standards of quality demanded of the other Richard Hudnut preparations.

Unsurpassed in their field, Hudnut products are produced under the same conditions of scientific control with which pharmaceutical products are manufactured.

CHEN YU INC., A DIVISION OF RICHARD HUDNUT

Listen to Walter Winchell, ABC Network, Sunday Nights

CHEN YU



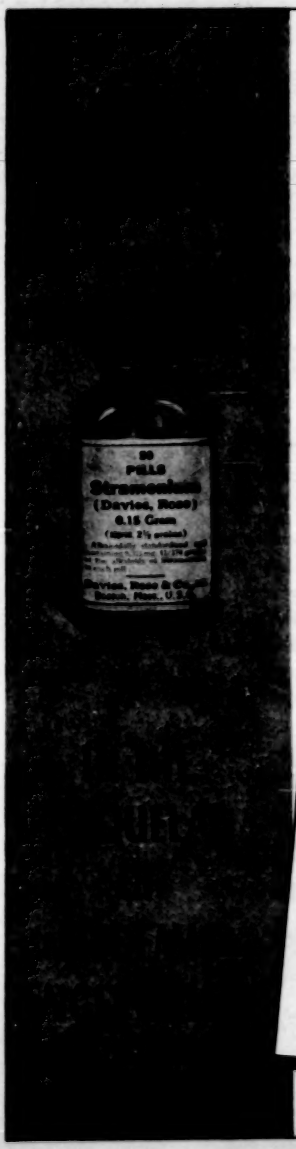
Smoother recovery after appendectomy

You can help your patients to smoother, comfortable recovery after appendectomies with Prostigmin methylsulfate. By helping restore normal peristalsis and bladder tone, the drug usually prevents intestinal distention and urinary retention. Best results are generally obtained by using Prostigmin both before and after abdominal surgery. Complete information on this and other uses of Prostigmin, based on extensive literature, will be sent upon request.

HOFFMANN-LA ROCHE INC. • NUTLEY 10 • N. J.

Prostigmin® methylsulfate

brand of neostigmine methylsulfate **'Roche'**



A THERAPY THAT EMBRACES
IN THEIR NATIVE STATE
THE ENTIRE ALKALOIDS
OF STRAMONIUM

STRAMONIUM PILLS

(DAVIES, ROSE)

O.15 GRAM (APPROX. 2½ GRAINS)

These pills exhibit the powdered dried leaf and flowering top of Datura Stramonium, alkaloidally assayed and standardized, and therefore contain in each pill 0.375 mg. (1/170 grain) of the alkaloids of stramonium.

Sample for clinical test and literature mailed upon request.

DAVIES, ROSE & COMPANY, LIMITED
Pharmaceutical Manufacturers
Boston 18, Mass., U. S. A.

St 3

Good START on AVOIDING Infant ALLERGIES...

THIS ONE-GRAIN CEREAL

The growing demand for a one-grain cereal suitable to initial infant feedings stimulated the development of Gerber's Barley Cereal. Always, when the medical profession expresses a *new* need in the area of infant nutrition, we at Gerber's make every attempt to satisfy it.

Helping you give babies a better start in life is our business . . . our only business. So in addition to its non-allergy advantages, Gerber's Barley Cereal contains added Iron, Calcium and important B vitamins.

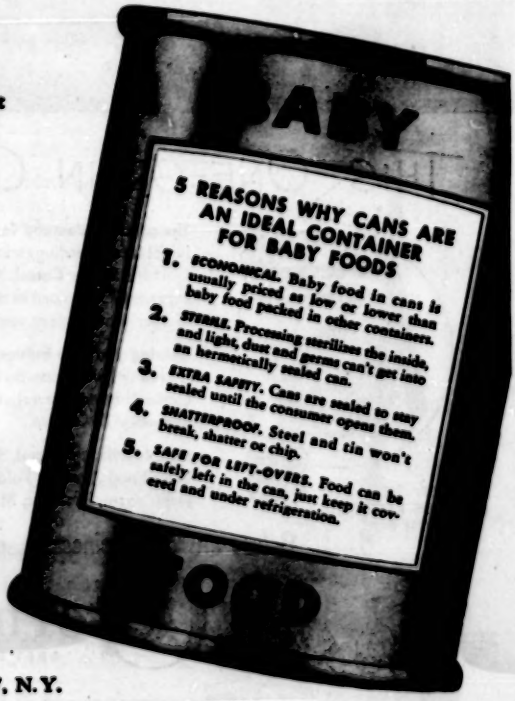
Samples: Barley Cereal, Strained Oatmeal, Cereal Food plus Baby Food Analysis Folder. Write on your letterhead to Dept. 205-o, Fremont, Mich.

VISIT THE GERBER'S EXHIBIT BOOTH F-20

Babies are our business . . . our only business!

Gerber's
BABY FOODS

Prescribe baby food in cans



The safety of the container is so important that it should be considered right along with the ingredients and quality of baby food itself. Only a container that is *shatterproof; light, dust* and *germ-proof;* and constructed with a *positive seal* can be considered a fully suitable container for baby foods.

The economical tin can meets all these requirements. In addition, the inside of a can, after processing, is as sterile as the instruments you use. Because of this sterility, the U. S. Department of Agriculture says:

"It is just as safe to keep canned food in the can it comes in — if the can is cool and covered — as it is to empty the food into another container. Cans and foods are sterilized in the processing. But the dish into which the food is emptied is far from sterile."

Continental Can Company, New York 17, N.Y.

BAUER & BLACK

Abdominal Belts

give dependable, comfortable support

Should your patient require firm yet comfortable abdominal support, due to post-operative conditions . . . strain . . . muscular weakness, etc. prescribe a BAUER & BLACK Abdominal Belt.

Made of strong, surgical elastic, with flexible metal stays, BAUER & BLACK belts give firm, positive support—yet with complete freedom of movement.

Cool and comfortable to wear . . . BAUER & BLACK belts can be put on easily or taken off without unlacing—can be easily adjusted for perfect fit.

For your patients' support and comfort, prescribe Bauer & Black elastic supports!

BRACER*—or BRACER* ROYAL Supporter Belts for firm, yet gentle abdominal or sacro-lumbar support.

TENSOR, the Elastic Bandage woven with *LIVE RUBBER THREAD,* provides dependable, controlled pressure. Stays put once applied.

BAUER & BLACK FASHIONED ELASTIC STOCKINGS, 2-way stretch—easy to fit. Women appreciate the neutral color and inconspicuousness.

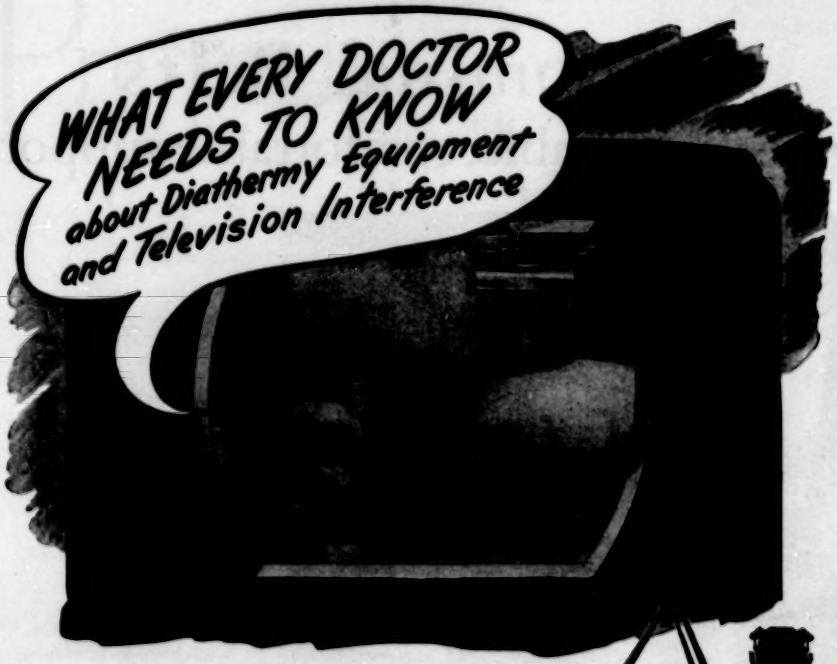
Send for informative FREE booklet on elastic supports—write Dept. AO-5.

BAUER & BLACK — FIRST IN ELASTIC SUPPORTS

Division of The Kendall Company, 2500 S. Dearborn St., Chicago 16

*Reg. U. S. Pat. Off.

WHAT EVERY DOCTOR NEEDS TO KNOW about Diathermy Equipment and Television Interference



Approved by the F. C. C. Certificate No. D-477 Underwriters' Laboratories

No doctor today can afford to be without adequate diathermy equipment.

BUT — be sure before you buy that you're not inviting TV trouble. FCC approval does *not* guarantee freedom from interference. Buy MICROTHERM and play safe.

MICROTHERM Radar Diathermy employs frequencies way above the television wave range. There's no interference.

Ask your dealer to give you a demonstration of the modern Raytheon Microtherm, or write for Bulletin DL-MED601.

Microtherm RADAR DIATHERMY MEANS:

Penetrating energy for deep heating — desirable relationship between fat and vascular tissue temperature, cutaneous and muscle temperature — effective production of active hyperemia — precise application over large or small areas — no tuning, no electrodes, no pads, no shocks or arcs, no contact between patient and directors.

RAYTHEON MANUFACTURING COMPANY

POWER TUBE DIVISION

WALTHAM 54, MASSACHUSETTS

BAXTER

Blood Banking

WITHOUT WASTE

The Baxter method of collecting, storing and administering blood and plasma is a model of simplicity, safety and streamlined efficiency. The closed system, developed and introduced by Baxter, insures sterility. Baxter expendable donor and administration sets make procedures simple, safe, expedites teaching. And now the new Baxter Fuso-Flo stopper solves the aging problem, insuring trouble-free, easy-flowing infusions. A demonstration of this complete Baxter program can be arranged without obligation.

Manufactured by
BAXTER LABORATORIES, Inc.
Morton Grove, Illinois

Produced and distributed in the eleven western states by DON BAXTER, Inc., Glendale, California

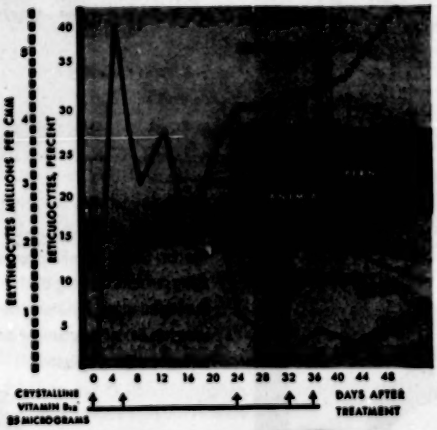
Distributed and available only in the 37 states east of the Rockies (except in the city of El Paso, Texas) through

AMERICAN HOSPITAL SUPPLY CORPORATION
GENERAL OFFICES • EVANSTON, ILLINOIS

POTENT

Anti-Anemia Factor

Pure, Crystalline Compound



First isolated in the Research Laboratories of Merck & Co., Inc., Crystalline Vitamin B_{12} in microgram dosage produces maximum hematologic and neurologic effects.

Crystalline Vitamin B_{12} is a *pure* anti-anemia factor—effective and well tolerated in patients sensitive to liver extracts and concentrates because it contains no deleterious foreign or extraneous matter. No toxicity has been encountered.

It can be injected either subcutaneously or intramuscularly without causing pain or induration.

The low price makes Cobione* most economical.

MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY

**Cobione is the registered trade-mark of Merck & Co., Inc. for its brand of Crystalline Vitamin B_{12}.*

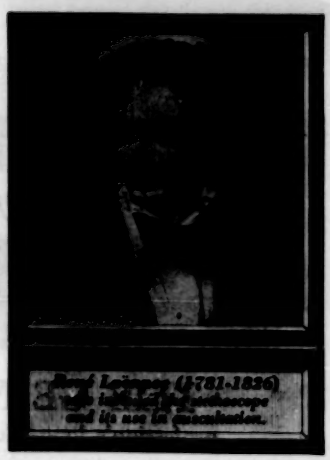
MERCK

B_{12} Cobione

Crystalline Vitamin B_{12} Merck

mm/Hg

HOW DO YOU MEASURE BLOODPRESSURE, DOCTOR?
DO YOU USE ACTUAL MILLIMETERS OF MERCURY?
— OR A SUBSTITUTE?



René Laennec (1781-1826)
and his use of mercurial...

MEDICAL PRACTICE has undergone many changes since the time of René Théophile Laënnec. Yet certain fundamental discoveries, like the law of gravity, are no different today. The actual mercury column remains the standard* measure of bloodpressure. The BAUMANOMETER is built on the principle by which all other types of bloodpressure apparatus are regularly checked for accuracy.*

Yes, the BAUMANOMETER can be depended upon to give you the accurate readings you need for correct diagnosis and treatment. This instrument has been designed to meet *your* requirements, as you have expressed them through the past decades.

There is a BAUMANOMETER to meet your every need. The handy, portable STANDBY model, calibrated to 300 mm/Hg is easily moved from place to place in office or hospital. The WALL model, for examining rooms and the 300 model, for desk use, are also calibrated to 300 mm/Hg. Finally, there is the KOMPAK model, that registers to 260 mm/Hg and weighs only 30 ounces. It will carry handily in your bag.

All are scientifically accurate, all are sturdy, and simple to use. All are equipped with the new accurate AIR-LOK Cuff, so simple to use it can be applied in a matter of seconds.

May we send you a copy of U.S. Bureau of Standards Technologic Paper No. 353 "Use and Testing of Sphygmomanometers."

Your surgical instrument dealer can supply

Baumanometer

See the Baumanometer at Booth C-3

SINCE 1916 ORIGINATORS AND MAKERS OF BLOODPRESSURE APPARATUS EXCLUSIVELY

W. A. BAUM CO., INC. · NEW YORK 1, N.Y.

A complete range of x-ray apparatus in 10 easy steps!

THE GE MAXICON meets the medical profession's long-felt need for x-ray equipment developed to grow with an expanding practice . . . providing just the x-ray facility required . . . unit by unit as needed!

MORE than just a new x-ray unit, the Maxicon is a fundamentally new idea for a comprehensive line of x-ray apparatus. Specifically designed to grow with your practice. Yes, the Maxicon permits you to choose only the x-ray facilities you actually want or require — from the simplest to the most complete unit. Comprised of a number of components that can be assembled in various combinations, it covers the range of diagnostic x-ray apparatus from the horizontal x-ray table to the 200-milliampere, two-tube, motor-driven combination unit.

The Maxicon series has a wealth of utility wherever diagnostic x-ray is employed. The practicing physician may select the basic unit, then let x-ray grow with his practice — by simply adding successive components from time to time. The medical specialist may arrange to have only the x-ray facilities his specialty requires. The clinic or hospital will appreciate the application of a simple unit as auxiliary equipment in a busy department, or a complete radiographic and fluoroscopic combination to adequately meet the demands of any type of examination.

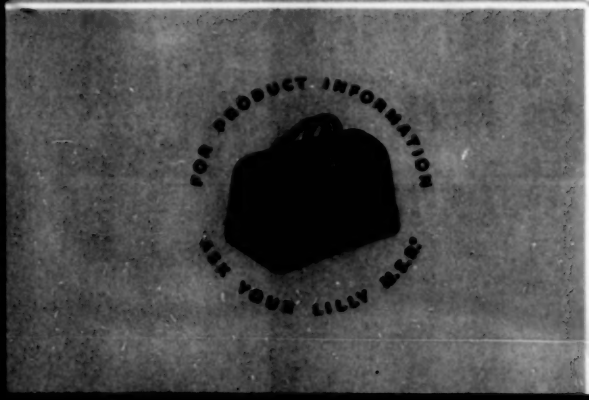
Discover for yourself the remarkable flexibility of the Maxicon. Ask your GE representative for unique booklet demonstration, or write General Electric X-Ray Corporation, Dept. B4, Milwaukee 14, Wis.

GENERAL ELECTRIC
X-RAY CORPORATION

Invariably precise

With 'Crystodigin'
(Crystalline Digitoxin, Lilly),
all of the desirable digitalis effects
are achieved without the unwieldy bulk
and often irritating property
of digitalis leaves.
The crystalline purity
of the single glycoside, 'Crystodigin,'
removes uncertainty of dosage.
Weight measurement
further assures precision.

Lilly



Detailed information and literature on 'CRYSTODIGIN' PRODUCTS are supplied through your M.S.R.*

*M.S.R.—Lilly Medical SERVICE Representative

A 19" x 12" reproduction of this illustration by Anton Otto Fischer is available upon request.

from all points of the compass

Blending their scents with seaport aromas, tons of herbs and crude drugs are regularly laid on the docks en route to Eli Lilly and Company.

Providing a complete line of pharmaceuticals means tapping world-wide sources. Most official preparations, as well as better-known specialties, are available with the Lilly label—a symbol of honest and meticulous craftsmanship, scientific skill, and ethical distribution.

Pharmacies featuring the Lilly line of products place emphasis on filling prescriptions with ingredients of only the highest quality.

Lilly

ELI LILLY AND COMPANY
INDIANAPOLIS 6
INDIANA, U.S.A.

VA
1951

The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. 143, No. 3 — CHICAGO, ILLINOIS — MAY 20, 1950

COPYRIGHT, 1950, BY AMERICAN MEDICAL ASSOCIATION

CHLORAMPHENICOL (CHLOROMYCETIN®) IN THE TREATMENT OF MURINE TYPHUS

HERBERT L. LEY Jr., M.D.
THEODORE E. WOODWARD, M.D.
and
JOSEPH E. SMADEL, M.D.
Washington, D. C.

The extensive field trial of chloramphenicol (chloromycetin®) in the treatment of scrub typhus (tsutsugamushi fever), which was carried on in the Federation of Malaya during 1948 by the United States Army Medical Research Unit,[1] furnished an opportunity to add to our earlier, limited studies[2] on the therapeutic efficacy of this new antibiotic in patients with murine (endemic) typhus. Since murine typhus occurs frequently in the southern part of the United States,[3] it seems worth while to report the beneficial results obtained with chloramphenicol in this disease.

MATERIALS AND METHODS

Chloramphenicol.—The antibiotic, prepared by a fermentation process, was supplied by Parke, Davis & Company in the form of compressed 0.1 and 0.25 Gm. tablets suitable for oral use.

Selection of Patients.—During the period March through May, 1948, 7 patients with murine typhus were observed who contracted their illness in the vicinity of Kuala Lumpur, Federation of Malaya. Because of the limited supply of chloramphenicol at that time, it was possible to treat only 3 of these patients.

Diagnosis of the Disease.—It is virtually impossible to establish a diagnosis of murine typhus on clinical grounds alone in a country where scrub typhus also occurs. Symptoms observed in the two diseases include a high fever accompanied with chills, severe frontal headache, muscular aches and occasional photophobia. Physical examination is of little value in differentiating murine typhus from scrub typhus, unless the eschar characteristic of the latter is found, for a macular rash, splenomegaly, lymphadenopathy and conjunctival injection may occur in both diseases, although the last two observations are more characteristic of scrub typhus.

All 7 patients complained of fever accompanied with frank chills or chilly sensations; 6 noted severe malaise associated with muscular aches; 5 complained of frontal headaches, and 1 had photophobia. In addition to the usual evidences of a prolonged febrile illness physical examination revealed splenomegaly, which disappeared after convalescence in 3 patients (controls 3 and 4 and treated case 7), and lymphadenopathy, conjunctival injection and a faint transient macular rash in 1 patient (treated case 35).

History of recent activities of the patient was of some help in differentiating murine typhus from scrub typhus. Earlier workers at the Institute for Medical Research had designated these two diseases as urban and rural typhus, respectively.[4] Preliminary differentiation of the two diseases was aided by the Weil-Felix reaction; agglutinins for the OX 19 strain of Proteus vulgaris develop in patients with murine typhus, and for the OX K strain in patients with scrub typhus. Ultimately, the diagnosis of murine typhus in the patients included in this report rested on specific serologic procedures which employed rickettsial suspensions as antigens.[5] In each patient there developed during convalescence a fourfold or greater rise in titer of specific murine typhus antibodies as determined by complement fixation or agglutination technic.

Treatment.—The 4 control patients were given only supportive therapy and nursing care during their illness. The 3 treated patients received, in addition, an initial oral dose of 45 to 60 mg. chloramphenicol per kilogram of body weight, followed by approximately 0.25 Gm. orally every three hours over periods ranging from thirty to eighty-four hours.

Laboratory Procedures.—The usual clinical methods of blood and urine analysis were used. Chloramphenicol blood levels were determined by a modification of the bioassay procedure of Joslyn and Galbraith.[6] Weil-Felix agglutination and specific complement fixation and rickettsial agglutination tests were performed according to the standard procedure of the Army Medical Department Research and Graduate School.[5]

RESULTS

Patients Given Supportive Treatment.—There were no fatalities or complications in the group of 4 male Indian laborers who received supportive treatment. A

From the Army Medical Department Research and Graduate School and the Commission on Immunization of the Army Epidemiological Board, Washington, D. C., and the University of Maryland School of Medicine, Baltimore.

The observations reported here were made on the wards of the government hospitals and in the laboratories of the Institute for Medical Research, Kuala Lumpur, Federation of Malaya; we were aided by members of the staffs of these organizations.

1. (a) Smadel, J. E.; Woodward, T. E.; Ley, H. L., Jr.; Philip, C. B.; Traub, R.; Lewthwaite, R., and Savoor, S. R.: Chloromycetin in the Treatment of Scrub Typhus, Science **108**:160, 1948. (b) Smadel, J. E.; Woodward, T. E.; Ley, H. L., Jr., and Lewthwaite, R.: Chloramphenicol (Chloromycetin) in the Treatment of Tsutsugamushi Disease (Scrub Typhus), J. Clin. Investigation **28**:1196, 1949.

2. Smadel, J. E.; León, A. P.; Ley, H. L., Jr., and Varela, G.: Chloromycetin in the Treatment of Patients with Typhus Fever, Proc. Soc. Exper. Biol. & Med. **68**:12, 1948.

3. Mascy, K. F.: An Epidemiological Study of Endemic Typhus (Brill's Disease) in the Southeastern United States, Pub. Health Rep. **41**:2967, 1926. Stuart, B. M., and Pullen, R. L.: Endemic (Murine) Typhus Fever: Clinical Observations of One Hundred and Eighty Cases, Ann. Int. Med. **23**:520, 1945.

4. Lewthwaite, R., and Savoor, S. R.: The Typhus Group of Diseases in Malaya: I. The Study of the Virus of Rural Typhus in Laboratory Animals, Brit. J. Exper. Path. **17**:1, 1936; II. The Study of the Virus of Tsutsugamushi Disease in Laboratory Animals, ibid. **17**:15, 1936; III. The Study of the Virus of the Urban Typhus in Laboratory Animals, ibid. **17**:23, 1936.

5. Plotz, H.: "The Rickettsiae," in Simmons, J. S., and Gentzkow, C. J.: Laboratory Methods of the United States Army, ed. 5, Philadelphia, Lea & Febiger, 1944, chap. 32, pp. 559-578.

6. Joslyn, D. A., and Galbraith, M.: A Turbidimetric Method for the Assay of Antibiotics, J. Bact. **54**:26, 1947. Smith, R. M.; Joslyn, D. A.; Gruhzit, O. M.; McLean, I. W., Jr.; Penner, M. A., and Ehrlich, J.: Chloromycetin: Biological Studies, ibid. **55**:425, 1948.

composite graph of their temperature charts is given in figure 1, which also includes data on the Weil-Felix OX 19 and murine typhus rickettsial agglutinating antibody titers obtained with serums taken on the twentieth day of disease. It will be noted that the temperatures

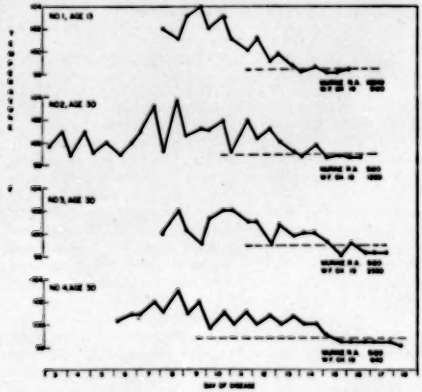


Fig. 1.—Temperature charts of the four patients with murine typhus who were given supportive treatment only. Figures after Murine R. A. and WF OX 19 indicate titer of murine rickettsial agglutination and Weil-Felix reaction for OX 19 strain of P. vulgaris.

of these 4 patients returned to normal levels between the fourteenth and sixteenth days of illness and that diagnostic antibody titers developed in all 4 persons by the twentieth day.

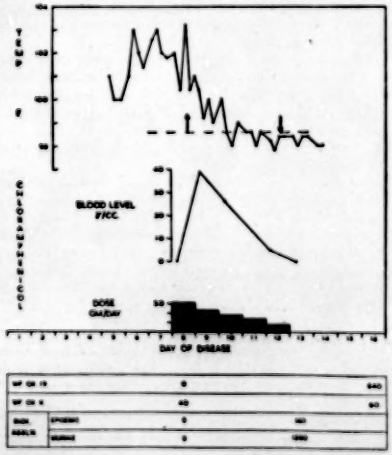


Fig. 2.—Clinical response of patient 7 with murine typhus to chloramphenicol therapy. WF OX 19 and WF OX K denote Weil-Felix reaction to OX 19 and OX K strains of P. vulgaris.

Patients Receiving Chloramphenicol Therapy.—The therapeutic results obtained in the 3 male Indian laborers in the present study who received chloramphenicol are illustrated by the observations in patient 7, whose record is summarized graphically in figure 2. The dramatic defervescence which occurred after the administration of chloramphenicol was observed in each treated patient. Patient 7 received an initial oral dose of 2.5 Gm. chloramphenicol during the afternoon of the eighth day of disease; this was followed by oral doses of 0.2 Gm. every two hours until the morning of the third day of treatment, when the dosage was reduced to 0.3 Gm. every four hours. Therapy was discontinued after eighty-four hours. The concentration of chloramphenicol in the blood reached a maximum of 40 micrograms per cubic centimeter on the second day of treatment and slowly declined thereafter. The patient was afebrile and entirely asymptomatic on the morning of the tenth day of disease, but his temperature did not stay below the normal level until the eleventh day. It should be noted that by the sixteenth day of illness agglutinins for the OX 19 strain of P. vulgaris and murine typhus rickettsiae had risen to diagnostic levels. Essentially similar results were observed in the 2 remaining patients who were treated with chloramphenicol for shorter periods of time.

TABLE 1.—*Murine Typhus Patients Treated with Chloramphenicol*

Patient		Day of Disease Rx Begun	Last Febrile Day of Disease	Hours of Fever After Rx	Treatment		Murine Rick. Agglu. Titer	
No.	Age				Hr.	Gm.	Acute	Conv.
6	35	7	8	40	64	7.5	1:160	1:640
7	14	8	11	60	84	9.5	0	1:1,280
35	30	11	12	36	30	5.5	0	1:2,560

TABLE 2.—*Murine Typhus Patients*

	Treated	Untreated
No. of patients	3	4
Day of disease Rx begun	7 to 11	
Last febrile day of disease	8 to 12, av. 10.3	14 to 16, av. 14.7
Hours of fever after Rx	36 to 60, av. 45	
Deaths or complications	0	0

A summary of pertinent data on the 3 treated patients is given in table 1. Treatment was begun, on the average, on the eighth day of illness and was continued for sixty hours, during which time an average total of 7.5 Gm. of chloramphenicol was administered.

Table 2 presents comparative information on the treated and untreated groups of patients. It is evident that chloramphenicol therapy resulted in termination of fever from thirty-six to sixty hours after treatment was begun and that it shortened appreciably the febrile period of this disease, which generally lasts for fourteen days.

No toxic manifestations were attributable to chloramphenicol therapy. This is in agreement with our more extensive experience in treating patients with scrub typhus and typhoid with chloramphenicol.[7]

COMMENT

Oral administration of chloramphenicol to 3 patients with murine typhus resulted in prompt defervescence accompanied with complete subjective recovery thirty-six to sixty hours after therapy was begun. The present group was treated, on the average, on the eighth day of illness, which is relatively late in the course of a disease that is characterized by fourteen days of fever.

7. Woodward, T. E.; Smadel, J. E., and Ley, H. L., Jr.: Chloramphenicol and Other Antibiotics in the Treatment of Typhoid Fever and Typhoid Carriers, J. Clin. Investigation, to be published. Smadel, Woodward, Ley and Lewthwaite.[15]

The average febrile period in the present treated group was about ten days; this might be expected to be reduced in other groups by earlier treatment.

In all 7 patients there developed diagnostic titers of agglutinins for the OX 19 strain of P. vulgaris and for murine typhus rickettsiae by the twentieth day of illness. Agglutinins for the rickettsiae of epidemic typhus and for the OX K strain were either absent from the convalescent serums or present in nondiagnostic titers. In only 1 of the patients did diagnostic amounts of complement-fixing antibody against washed murine typhus rickettsial antigen develop by the twentieth day of disease. This observation is in agreement with those of Scoville and his co-workers,[8] who noted the relatively late appearance of this complement-fixing antibody in convalescent patients.

CONCLUSION

Until more experience is accumulated, the following regimen is suggested for the treatment of patients with murine typhus. An initial oral dose of 60 mg. chloramphenicol per kilogram of body weight is to be followed by 0.25 Gm. doses at three hour intervals over a period of forty-eight hours or until the temperature becomes normal, whichever period is longer. Supportive therapy, including intravenous fluids and plasma, may be given to seriously ill or debilitated patients, but recovery is so rapid after the administration of chloramphenicol that these probably will be required only occasionally.

ROUTINE LABORATORY DIAGNOSIS OF VIRUS AND RICKETTSIAL DISEASES

Results of an Eighteen Month Study

ALBERT MILZER, M.D.
Chicago

In the past, laboratory technics for the diagnosis of the virus and rickettsial infections have been too complicated for the routine hospital laboratory, and these procedures were largely limited to research laboratories with highly trained personnel. Recently serologic tests for many of these diseases have been developed to the point that hospital laboratories equipped to carry out complement fixation tests can perform many of these tests routinely and be of great diagnostic aid to the clinician. Also commercial diagnostic antigens and antiserums are now available for many of the virus and rickettsial diseases.

The serologic procedures which are chiefly applicable to routine work include the complement fixation and hemagglutination inhibition tests. These tests depend on the demonstration of a significant rise in antibody titer in serums obtained during the acute and convalescent phases of illness. This paper is a general discussion of the present status of the laboratory diagnosis of virus and rickettsial diseases, with emphasis on those procedures which can be employed in the routine hospital laboratory. Results obtained during the eighteen months since the introduction of routine diagnostic tests for virus and rickettsial diseases in my laboratory are also presented.

Two types of laboratory tests are generally used for diagnosis of virus and rickettsial diseases. The first consists of attempts to isolate the etiologic agent by animal or chick embryo inoculation, and the second of various serologic tests to detect the presence of specific antibodies. Animal or chick embryo inoculation is too expensive and impractical for the average hospital laboratory for several reasons: The number of positive isolations is relatively low and highly trained personnel are needed to identify the isolated agents. There is also considerable risk of laboratory infection in working with many of the viruses and rickettsiae in the active state.[1] Many of the viruses, especially of the neurotropic group, are present in the blood or other body fluids only during the incubation period; by the time the physician sees the patient the virus is no longer present and the chances of isolation are minimal.

Another disadvantage of animal or chick embryo inoculation for virus isolation is that certain stocks of laboratory animals are known to be spontaneously infected with viruses which might be confused with the strain isolated from the patient. These include lymphocytic choriomeningitis,[2] Theiler's encephalomyelitis virus [3] and pneumonitis.[4] In fact, the normal chick embryo has been found infected with the virus of Newcastle disease [5] and a pleuropneumonia-like organism.[6]

For laboratory personnel who are interested in attempting the isolation of viruses, a summary of the detection of viruses in various human tissues, secretions or excretions is shown in table 1. It must be kept in mind that the virus of lymphocytic choriomeningitis is one of the few which may be constantly present in the blood or spinal fluid after the patient has clinical signs and symptoms of infection. The viruses of St. Louis encephalitis,[7] Western equine encephalomyelitis,[8] poliomyelitis,[9] lymphogranuloma venereum and mumps [10] are rarely isolated from the blood. The viruses of St. Louis encephalitis and Eastern equine encephalomyelitis have not been isolated from the spinal fluid thus far. Henle and McDougall [11] recently reported the successful isolation of mumps virus from the spinal fluid.

Most of the neurotropic viruses can be isolated from tissues of the central nervous system soon after death of the patient by the inoculation of suitable susceptible animals (table 2). It must be emphasized that viruses are unstable and rapidly become inactivated at room temperature but retain their infectivity if stored at low

8. Scoville, A. B., Jr.; Bennett, B. L.; Wertman, K., and Gauld, R. L.: The Serologic Pattern in Typhus Fever: II. Murine, Am. J. Hyg. 47: 166, 1948.
From the Department of Bacteriology and Virology, Medical Research Institute, Michael Reese Hospital.
Read in part before the Society of Experimental Biology and Medicine, Illinois Branch, May 10, 1949. Aided by a grant from the Committee on Scientific Research of the American Medical Association and the Michael Reese Research Foundation. Shirley Nathan and Sylvia King gave technical assistance.

1. Sulkin, S. E., and Pike, R. M.: Viral Infections Contracted in the Laboratory, New England J. Med. 241: 205-213 (Aug. 4) 1949.
2. Traub, E.: Epidemic in Mouse Colony Due to Virus of Lymphocytic Choriomeningitis, J. Exper. Med. 63: 533-546 (April) 1936.
3. Theiler, M.: Spontaneous Encephalomyelitis of Mice: New Virus Disease, J. Exper. Med. 65: 705-719 (May) 1937.
4. Docker, A. R.; Mills, K. C., and Mulliken, B.: Virus Disease of Swiss Mice Transmissible by Intranasal Inoculation, Proc. Soc. Exper. Biol. & Med. 36: 683-686 (June) 1937. Gordon, F. B.; Freeman, G., and Clampit, J. M.: Pneumonia-Producing Filterable Agent from Stock Mice, ibid. 38: 450-453 (Dec.) 1938.
5. DeLay, P. D.: Isolation of Avian Pneumoencephalitis (Newcastle Disease) Virus from the Yolk Sac of Four-Day-Old Chicks, Embryos and Infertile Eggs, Science 106: 545 (Dec. 5) 1947.
6. Van Henick, W., and Eaton, M. D.: An Unidentified Pleuropneumonia-like Organism Isolated During Passages in Chick Embryo, J. Bact. 50: 47-55 (July) 1945.
7. Rivers, T. M.: Viral and Rickettsial Infections of Man, Philadelphia, J. B. Lippincott Company, 1948, p. 174.
8. Hammon, W. M.: The Epidemic Encephalitides of North America, M. Clin. North America 27: 632-650 (May) 1943.
9. Ward, R.; Horstmann, D. M., and Melnick, J. L.: Isolation of Poliomyelitis Virus from Human Extraneural Sources: Search for Virus in Blood of Patients, J. Clin. Investigation 25: 284-286 (March) 1946.
10. Berezin, P. B.; Wall, M. J., and Heyman, A.: Isolation of Virus of Lymphogranuloma Venereum from Blood and Spinal Fluid of a Human Being, Proc. Soc. Exper. Biol. & Med. 69: 306-307 (June) 1948. Kilham, L.: Isolation of Mumps Virus from Blood of a Patient, ibid. 69: 99-100 (July) 1948.
11. Henle, W., and McDougall, C. L.: Mumps Meningo-Encephalitis: Isolation in Chick Embryos of Virus from Spinal Fluid of a Patient, Proc. Soc. Exper. Biol. & Med. 66: 209-211 (Oct.) 1947.

temperatures. Probably the best technic for preservation until inoculations for virus isolation can be carried out is by storage of infected specimens in sealed glass ampuls in solid carbon dioxide (CO_2) at minus 76 C.[12] If solid carbon dioxide is not available, a less satisfactory procedure applicable to storage of infected tissue is by immersion in 50 per cent buffered glycerin [13] kept at 3 to 5 C. Drying of viruses and other biologic materials while in the frozen state in a lyophile apparatus is another excellent method for preservation.[14] Penicillin and streptomycin or sulfathiazole mixtures are usually added to sputum and other virus specimens to destroy bacteria prior to animal and chick embryo inoculation.[15] Ether may be used to destroy bacteria in stools from patients with poliomyelitis.[16] Lack of space does not permit details of chick embryo and animal inoculation, but those interested in this subject may consult articles by Van Rooyen and Rhodes,[17] Rivers [18] and Topping.[19]

TABLE 1.—*Detection of Virus in Various Human Tissues, Secretions or Excretions*

Disease	Brains and Cord	Spinal Fluid	Blood	Respiratory Secretions and Saliva	Conjunctiva	Feces	Skin and Genital Lesions
Lymphocytic choriomeningitis	+	+	+	+	—	+	—
St. Louis encephalitis	+	—	+*	—	—	—	—
Equine encephalomyelitis	+	+*†	+*†	—	—	—	—
Jap. B. encephalitis	+	+	+	—	—	—	—
Poliomyelitis	+	—	+*	+	—	+	—
Rabies	+	—	—	+	—	—	—
Herpes simplex	+	+‡	—	+‡	—	—	+
Lymphogranuloma venereum	—	+	+*	—	+	+	+
Psittacosis	—	—	+	+	—	+	—
Influenza	—	—	—	+	—	—	—
Yellow fever	—	—	+	—	—	—	—
Variola	—	—	—	—	—	—	+
Mumps	—	+	+*	+	—	—	—
Inclusion conjunctivitis	—	—	—	—	+	—	—
Molluscum contagiosum	—	—	—	—	—	—	+
Epidemic keratoconjunctivitis	—	—	—	—	+	—	—

* Isolated rarely. † Western type. ‡ Found in normal persons.

Table 2 summarizes the manner of identifying the isolated etiologic virus. The following characteristics aid in the identification of the neurotropic viruses:

1. Animal host range—for example, rabies virus is pathogenic for nearly all mammals but poliomyelitis virus only for certain Old World monkeys and the chimpanzee.

2. Routes of inoculation that produce disease—for example, the virus of lymphocytic choriomeningitis can produce infection by almost any route of inoculation, but most strains of poliomyelitis virus must be inoculated intracerebrally or intranasally.

3. Tissue infected—for example, the virus of lymphocytic choriomeningitis is found in almost all tissues of the body, but that of St. Louis encephalitis is largely confined to the nervous system.

4. Microscopic observations—for example, Negri bodies in rabies, necrosis of anterior horn cells in poliomyelitis.

5. Serologic tests—neutralization, complement fixation and hemagglutination inhibition, which are more fully discussed later.

NEUTRALIZATION TEST

The neutralization test is used to detect the presence of virus-neutralizing antibodies in the patient's serum or may be used to identify an isolated virus provided a serum with known specific antibodies is employed. The test serum is mixed with the virus in suitable proportions, incubated and inoculated into susceptible animals. In some of these tests the amount of virus used is kept constant and serial dilutions of serum added; in others the amount of serum is kept constant and the virus is diluted. Serum should be collected as early as possible during the acute stage and later during convalescence, and a diagnosis is made by the demonstration of a significant rise in specific neutralizing antibody titer. This test has not proved to be of equal value for diagnosis of rickettsial infections.

The time of appearance of neutralizing antibodies for the various virus infections after onset of disease varies considerably. Antibodies may be present in significant titer within one week in Western equine encephalomyelitis, but as long as ten weeks may elapse in lymphocytic choriomeningitis before the appearance of antibodies.[20] However, as a rule most virus-neutralizing antibodies are detectable in serum obtained one month after onset. Serums containing neutralizing antibodies are preserved by storage in solid carbon dioxide.

The neutralization test is too technical, costly and time-consuming for routine diagnostic use. It has proved exceedingly useful in my laboratory to confirm positive complement fixation tests for the neurotropic group of viruses. Further information concerning the technic and interpretation of the neutralization test may be found in the excellent articles by Hammon [21] and Smadel.[22]

HEMAGGLUTINATION INHIBITION TEST

Hemagglutination inhibition is a useful test that can be readily employed in the routine diagnostic laboratory for diagnosis of influenza and mumps virus infections. This test depends on the fact that allantoic fluid of chick embryos infected with these viruses causes agglutination of chick erythrocytes and those of certain other species when mixed in a test tube and incubated at room temperature. Serums containing antibodies for these viruses will specifically inhibit the hemagglutination in a quantitative manner. Diagnosis depends on the demonstration of at least a fourfold rise in antibody titer between the acute and convalescent phase serums. Several satisfactory technics for performing the hemagglutinin inhibition test are described in the

12. Turner, T. B., and Fleming, W. L.: Prolonged Maintenance of Spirochaetes and Filterable Viruses in Frozen State, J. Exper. Med. **70**: 629-637 (Dec.) 1939. Horsfall, F. L., Jr.: Low Temperature Storage Cabinet for Preservation of Viruses, J. Bact. **40**: 559-568 (Oct.) 1940.

13. Stitt, E. R.; Clough, P. W., and Clough, M. C.: Practical Bacteriology, Hematology and Animal Parasitology, Philadelphia, The Blakiston Company, 1938, p. 876.

14. Flosdorf, E. W., and Mudd, S.: Procedure and Apparatus for Preservation in "Lyophile" Form of Serum and Other Biological Substances, J. Immunol. **29**: 389-425 (Nov.) 1935.

15. Rose, H. M.; Molloy, E., and O'Neill, E.: Effect of Penicillin and Bacterial Contamination of Eggs and Tissue Cultures Inoculated with Unfiltered Specimens, Proc. Soc. Exper. Biol. & Med. **60**: 23-25 (Oct.) 1945. Hodges, J. H.: The Effect on the Chick Embryo of the Simultaneous Inoculation of Stool, Streptomycin and Penicillin, Science **104**: 460-461 (Nov. 15) 1946. Laymaster, G. R., and Ward, T. G.: Direct Isolation of Mumps Virus in Chick Embryos, Proc. Soc. Exper. Biol. & Med. **63**: 346-348 (June) 1947. Howitt, B. F., and Barnett, V. H.: Use of Penicillin and Streptomycin in the Isolation of Poliomyelitis Virus from Fecal Specimens, J. Lab. & Clin. Med. **33**: 1402-1409 (Nov.) 1948.

16. Paul, J. R.: Poliomyelitis in Diagnostic Procedures for Virus and Rickettsial Diseases, ed. 1, Am. Pub. Health A. 1948, p. 179.

17. Van Rooyen, C. E., and Rhodes, A. J.: Virus Diseases of Man, Thomas Nelson & Sons, 1948, pp. 113 and 128.

18. Rivers, T. M.: Viral and Rickettsial Infections of Man, J. B. Lippincott Company, 1948, p. 97.

19. Topping, N. H.: Rickettsial Diseases in Diagnostic Procedures for Virus and Rickettsial Diseases, ed. 1, Am. Pub. Health A., 1948, p. 299.

20. Armstrong, C.: Studies on Choriomeningitis and Poliomyelitis, The Harvey Lectures, 1940-1941, Baltimore, Williams & Wilkins Company, 1942, series 36, pp. 39-65.

21. Hammon, W. McD.: Encephalitis in Diagnostic Procedures for Virus and Rickettsial Diseases, ed. 1, Am. Pub. Health A. 1948, p. 187.

22. Smadel, J. E.: Serologic Reactions in Viral and Rickettsial Infections in Viral and Rickettsial Infections of Man, Philadelphia, J. B. Lippincott Company, 1948, p. 67.

literature. I have found the technic described by Salk suitable for routine work.[23]

The hemagglutination inhibition test has been used in the past for the diagnosis of Newcastle disease in man. Recently, however, Jungherr and others [24] have shown that many mumps convalescent phase serums apparently also contain both hemagglutination-inhibiting antibodies and neutralizing antibodies for Newcastle virus. For this reason these workers expressed their belief that a diagnosis of Newcastle disease in man should be made only with caution, especially in the absence of virus isolation.

COMPLEMENT FIXATION TEST

Until recently the value of the complement fixation test for the routine diagnosis of virus and rickettsial diseases has been discredited. With the recent development of stable, noninfectious and commercially available diagnostic antigens [25] the complement fixation test has been used successfully for routine diagnosis of virus and rickettsial diseases in my laboratory for the past eighteen months. This test has several obvious advantages over virus isolation and the neutralization test as already mentioned. Animals are not required, and in many instances specific complement-fixing antibodies can be detected in the patient's serum relatively early in the course of the disease (2 to 3 weeks after the onset). For example, complement-fixing antibodies for St. Louis encephalitis, Japanese B encephalitis and lymphocytic choriomeningitis appear much earlier than the neutralizing antibodies. On the other hand, the neutralizing test for equine encephalomyelitis is positive before the complement fixation test.[26] At present there is no satisfactory routine complement fixation, neutralization or hemagglutination inhibition test for the diagnosis of poliomyelitis.[27]

The complement fixation test is relatively inexpensive, and a technician familiar with the basic principles of this test as practiced in bacteriology should be able to use it successfully for routine virus and rickettsial diagnosis. The complement fixation test as applied to virus and rickettsial antigens must be carefully controlled. Normal tissues of the same source used to grow the virus or rickettsia must be used as antigen controls in each test in order to rule out nonspecific reactions. Also, known positive and negative control serums should be included in each test. The patient's serum must be inactivated at 60 C. for twenty minutes to reduce nonspecific reaction (slightly anticomplementary or Wassermann positive). Often the serums may still be unsatisfactory unless heated twice at 60 C., or once at 65 C., for twenty minutes. It is advisable to test all positive serums at least twice until considerable experience has been gained in performing the complement fixation test and, if possible, to check positive results by another test such as the neutralization or hemagglutination inhibition test.

TABLE 2.—*Identification of Etiologic Virus*

Disease	Laboratory Animals of Choice	Special Pathology	Serology of Convalescent Serum: Neutralization Test	Serology of Convalescent Serum: Complement Fix. Test	Serology of Convalescent Serum: Other Tests*
Lymphocytic choriomeningitis	Mouse and guinea pig	Choriomeningitis	+	+	—
St. Louis encephalitis	Mouse	Encephalitis	+	+	—
Equine encephalomyelitis	Mouse and guinea pig	Encephalomyelitis	+	+	—
Jap. B. encephalitis	Mouse	Encephalitis	+	+	—
Poliomyelitis	Monkey	Degeneration anterior horn cells	+†	—	—
Rabies	Mouse	Negri bodies	+	+ (exp.)	—
Herpes simplex	Fertile egg, rabbit cornea, and mouse	Inclusions, keratitis, encephalitis	+	—	—
Lymphogranuloma venereum	Mouse and fertile egg	Encephalitis, miyagawa corpuscles	+	+	—
Psittacosis	Mouse	L. C. L. bodies ‡ in liver and spleen	+	+	—
Influenza	Fertile egg, mouse and ferret	Pneumonia	+ low titer	+	Red cell aggl.
Yellow fever	Mouse and monkey	Encephalomyelitis (mouse); liver necrosis (Councilman inclusions)	+	+†	Ppt. test†
Variola	Fertile egg and rabbit cornea	Guarnieri bodies	+	+	Ppt. test
Mumps	Fertile egg and monkey	Parotitis	+	+	Red cell aggl.
Inclusion conjunctivitis		Smear for inclusions	—	—	—
Molluscum contagiosum		Smear for inclusions	—	—	—
Epidemic keratoconjunctivitis	Mouse	Encephalitis	+	—	—

* Ppt. denotes precipitation test.
† The significance of the test is controversial.
‡ L. C. L. (Levinthal, Cobs and Lillie) bodies are elementary bodies in psittacosis regarded as the virus of that disease.

The technic of the complement fixation test used in the present studies is essentially a modified Kolmer test as recommended by the manufacturer of the antigen.[25] First the serum sample of the patient was inactivated by heating at 60 C. for twenty minutes. The test consists in mixing 1 unit of antigen (0.1 cc.) with 2 full units of complement (0.2 cc.) and 1:5 and 1:20 dilutions of the serum (0.2 cc.) to be tested. Lower dilutions of the test serum are not used in the screen test in order to avoid cross fixations. The mixture is incubated in a water bath at 37 C. for one hour and twenty minutes. Next the hemolytic system, consisting of 0.4 cc. of an equal volume of 2 per cent suspension of washed sheep cells and amboceptor (hemolysin) solution containing two hemolytic units is added. The tests are read after further incubation at 37 C. for a half hour. The test is repeated with higher dilutions if the 1:5 and 1:20 serum dilution show 4 plus reaction. An antigen control prepared from normal tissue of the same source used to prepare the antigen and both positive and negative control serums are included in each test. If serum samples cannot be tested shortly after they have been collected, it is important that they be kept frozen.

23. Salk, J. E.: A Simplified Procedure for Titrating Hemagglutinating Capacity of Influenza Virus and the Corresponding Antibody, *J. Immunol.* **49**: 87-98, 1944.
24. Jungherr, E.; Luginbuhl, R. E., and Kilham, L.: Serologic Relationships of Mumps and Newcastle Diseases, *Science* **110**: 333-334 (Sept. 30) 1949.
25. Obtained from the Markham and Lederle Laboratories. Most of the antigens used were prepared by the Markham Laboratories of Chicago.
26. Hewitt, B. F.: The Complement-Fixation Test with Human Sera Against Viruses of St. Louis Encephalitis and Equine Encephalomyelitis, *J. Immunol.* **47**: 293-302 (Oct.) 1943.
27. Loring, H. S.; Raffel, S., and Anderson, J. C.: Complement-Fixation in Experimental and Human Poliomyelitis, *Proc. Soc. Exper. Biol. & Med.* **60**: 385-392 (Nov.) 1947. Milzer, A., and Adelman, P.: Hemagglutination by Normal and Poliomyelitis Stool Suspensions, *Proc. Soc. Exper. Biol. & Med.* **71**: 206-209 (June) 1949.

As in the neutralization and hemagglutination inhibition tests a diagnosis should not be made on the results with a single serum specimen. The positive result may be due to a past infection or previous vaccination. Paired serum samples must be obtained during the acute and convalescent phases of illness. Acute phase serums should be collected as soon as possible after onset of illness and convalescent phase serums at least two and four weeks after onset. Negative or weakly positive reactions in the acute phase followed either by a positive reaction or a fourfold or more rise in antibody titer are diagnostic. In my experience complement fixing titers in the neurotropic virus group seldom exceed 1:40, while titers in excess of 1:160 are not unusual in the rickettsia and psittacosis groups.

TABLE 3.—*Classification of Diagnostic Virus and Rickettsial Complement Fixation Antigens for Clinical Use*

A. Respiratory group	
1. Influenza A and B	
2. Psittacosis-pneumonitis	
3. Lymphocytic choriomeningitis *	
4. Q fever	†
B. Encephalitides group	
1. Western equine encephalomyelitis *	
2. Eastern equine encephalomyelitis *	
3. Lymphocytic choriomeningitis *	
4. St. Louis encephalitis *	
5. Mumps	
6. Jap. B encephalitis *	
C. Aseptic meningitis group	
1. Lymphocytic choriomeningitis *	
2. Mumps	
3. Lymphogranuloma venereum †	
D. Rickettsial group	
1. Rocky Mountain spotted fever	
2. Murine typhus	
3. Epidemic typhus	
4. Rickettsialpox	
5. Q fever	

* Positive findings should be checked by neutralization tests.
† Positive findings should be checked by Frei intradermal test.

RESULTS OF ROUTINE TESTS

During the past eighteen months virus and rickettsial diagnostic tests have been performed on a routine basis. Complement fixation tests with various commercial virus and rickettsial diagnostic antigens [25] were done with serums obtained during the acute and convalescent phases of disease in accordance with principles already discussed. The selection of diagnostic antigens was made on the basis of clinical observations in the patient. For example, serums of patients with atypical pneumonia were tested with the respiratory group of complement fixation antigens listed in table 3. Tests for cold hemagglutinins [28] and Streptococcus MG [29] were also done routinely in cases of atypical pneumonia. The encephalitides group of antigens were used for patients with encephalitis, and the aseptic meningitis group except lymphogranuloma venereum for those with virus meningitis. The rickettsial group were used for patients whose clinical condition was suggestive of infection with these organisms. All antigen groups listed in table 3, including cold hemagglutinins, Streptococcus MG and heterophil agglutination were tested in patients with fever of unknown origin.

TABLE 4.—*Results of Routine Serologic Tests in 131 Patients with Atypical Pneumonia*

Diagnostic Antigen	Positive Results	
	No.	Percentage
Lymphocytic choriomeningitis	2*	1.5
Psittacosis-pneumonitis	2	1.5
Influenza A	4†	3.0
Influenza B	6†	4.5
Q fever	1	0.8
Cold agglutinins	38	28.5
Streptococcus MG	7	5.7

* Verified by neutralization tests.
† Verified by hemagglutination inhibition test.

Positive results with complement-fixing tests for viruses of encephalitides and aseptic meningitis groups were checked by neutralization tests. The hemagglutination inhibition test was used to verify positive influenza and mumps fixations. In selected cases attempts were made to isolate etiologic viruses and rickettsiae by inoculation of susceptible animals and chick embryos.

A total of 131 patients with the clinical diagnosis of atypical pneumonia were studied. These patients were sporadic cases in Michael Reese and other Chicago hospitals. Results obtained are shown in table 4. Blood cultures of these patients showed no growth, and sputum cultures contained the usual normal flora. Limited attempts to isolate viruses in this group of patients were negative. None were positive for more than a single serologic test listed in table 4. Standard technics were followed in cold hemagglutinin [30] and Streptococcus MG agglutinin tests.[31] Titers of 1:40 or more in convalescent phase serums were considered significant in the cold agglutinin test and 1:20 or more for Streptococcus MG. All the infections in this series were moderate in severity except those of 2 patients with positive psittacosis-pneumonitis fixation who later recovered. Both gave a history of prolonged contact with pigeons. The patient whose serum was positive for Q fever probably acquired the infection in California, because he was convalescing from atypical pneumonia when he arrived in Chicago. Subsequently a recurrence developed, and the titer of his convalescent phase serum was 1:160. The source of infection in the 2 patients with lymphocytic choriomeningitis is unknown. Both denied contact with mice. The clinical observations in the cases of this series with positive fixation will be described in a later paper.

TABLE 5.—*Results of Routine Serologic Tests in 89 Patients with Encephalitis*

Diagnostic Antigen	Positive Results	
	No.	Percentage
Western equine encephalomyelitis	2*	2.3*
Eastern equine encephalomyelitis	0	0
St. Louis encephalitis	0	0
Lymphocytic choriomeningitis	3†	3.3
Mumps	8‡	8.8
Japanese B encephalitis	0	0

* Only one verified by neutralization test.
† Verified by neutralization tests.
‡ Verified by hemagglutination inhibition test.

Eighty-nine patients with symptoms and clinical observations of encephalitis or aseptic meningitis were studied. These were also patients with sporadic infections for which a bacterial etiologic factor could not be established. Table 5 summarizes the results obtained.

28. Cold agglutinins are antibodies in the serum of certain patients with atypical pneumonia and other diseases which aggregate the patient's erythrocytes or group O erythrocytes at low temperatures but not at 37C. The titer of cold agglutinins is generally proportional to the severity of the illness.

29. Streptococcus MG is a nonhemolytic streptococcus which can be isolated from serum from patients with certain atypical pneumonias. In such patients agglutinins for this strain usually develop during convalescence.

30. Peterson, O. L.; Ham, T. H., and Finland, M.: Cold Agglutinins (Autohemagglutinins) in Primary Atypical Pneumonias, Science **97**:167 (Feb. 12) 1943.

31. Thomas, L.; Mirick, G. S.; Curren, E. C.; Ziegler, J. E., Jr., and Horsfall, F. L., Jr.: Studies on Primary Atypical Pneumonia: II. Observations Concerning the Relationship of a Non-Hemolytic Streptococcus to the Disease, J. Clin. Investigation **24**:227-240 (March) 1945.

Two patients had positive complement fixation tests for Western equine encephalomyelitis. The first was an adult whose infection was confirmed by the neutralization test and has been reported in detail previously.[32] The second was a boy aged 8 years, in whom there was a false positive result; the neutralization test was completely negative, and the patient was later shown to have a cerebellar tumor. A similar false positive test for the virus of lymphocytic choriomeningitis in another patient with tumor of the brain has been observed by Zichis.[33] In the 3 patients with tests positive for lymphocytic choriomeningitis the results were confirmed by neutralization tests. Two of the 3 had clinical symptoms of aseptic meningitis and the third of encephalitis. All 3 were adults who gave a history of living in homes overrun with mice.

None of the 8 patients whose complement fixation tests were positive for mumps in table 5 had salivary gland involvement or a previous history of mumps infection. Clinically, all had meningoencephalitis that occurred at a time (late in the Spring of 1949) when there was a relatively high incidence of mumps in the general population. The majority gave a history of contact with patients known to have mumps about three to four weeks prior to onset. In this connection it is interesting to note that of 44 patients with poliomyelitis studied during the summer of 1949 who are not listed in table 5, 8 whose disease was diagnosed as nonparalytic poliomyelitis also showed positive serologic evidence for mumps infection. None of the latter had evident parotitis or a previous history of mumps. These cases will be reported in detail later. No fatalities occurred among the persons with confirmed positive serologic responses listed in table 5. Unfortunately, specimens suitable for virus isolation were not submitted to the laboratory from the patients with positive serologic tests. Negative results were obtained in the limited number of virus isolations which were attempted on the remainder of the patients, including 4 who died.

Data obtained in serologic studies of 85 patients with fever of unknown origin are outlined in table 6. The Paul-Bunnell technic[34] was used for the heterophil agglutination test, and only results obtained after guinea pig kidney absorption[35] are recorded in table 6. Repeated blood cultures of these patients showed no growth, and attempts to isolate etiologic bacteria and fungi were negative. Reactions of the blood to the Kahn and Wassermann tests were negative. Agglutination tests for typhoid, paratyphoid A and B, brucellosis, tularemia and the Weil-Felix reaction were not diagnostic. Roentgenograms of the chest in most of the group were interpreted as revealing normal conditions.

The positive serologic test for Western equine encephalomyelitis shown in table 6 was in an adult without apparent involvement of the central nervous system. The 5 patients whose serums were positive for mumps were 3 children and 2 adults without evident parotitis or involvement of the central nervous system and without a history of previous mumps infection. These cases occurred late in the Spring of 1949 when mumps, as previously mentioned, was prevalent in Chicago. The 4 patients with positive tests for influenza virus showed no evidence of involvement of the respiratory tract, and roentgenograms of their chests revealed normal conditions. The 7 patients with positive absorbed heterophil agglutination tests were adults with positive hematologic[36] but negative clinical observations for infectious mononucleosis. No fatalities occurred in this group, and results of limited attempts to isolate viruses and rickettsiae were negative.

TABLE 6.—*Results of Routine Serologic Tests in 85 Patients with Fever of Unknown Origin*

Diagnostic Antigen	Positive Results	
	No.	Percentage
Western equine encephalomyelitis	1*	1.2
Eastern equine encephalomyelitis	0	0
St. Louis encephalitis	0	0
Lymphocytic choriomeningitis	2*	2.4
Mumps	5†	5.9
Psittacosis-pneumonitis	0	0
Influenza A	2†	2.4
Influenza B	2†	2.4
Q fever	0	0
Cold agglutinins	0	0
Streptococcus MG	0	0
Rickettsialpox	0	0
Typhus (murine and epidemic)	0	0
Rocky Mountain spotted fever	0	0
Heterophil	7	8.2

* Confirmed by neutralization tests.
† Confirmed by hemagglutination inhibition tests.

COMMENT

The results obtained in the present study indicate the feasibility and value of conducting routine serologic tests for the diagnosis of many virus and rickettsial diseases by the hospital laboratory. Obviously, the complement fixation test properly controlled is the procedure of choice for routine work. Some laboratories may prefer to substitute the hemagglutination inhibition test for diagnosis of influenza and mumps infections. My results and those of others[37] indicate that there is good agreement between these two types of tests as a diagnostic aid. On the other hand, I believe that positive complement fixation with the encephalitides group of antigens should be checked by the neutralization test because of the observation of false positive fixations for Western equine encephalomyelitis and lymphocytic choriomeningitis in 2 patients with cerebral tumors. Perhaps it would be advisable for laboratories with facilities only for routine tests to send serums positive for viruses of the encephalitides group to the larger virology laboratories for tests in verification of the diagnosis.

Results obtained in infections of the atypical pneumonia group agree essentially with those previously reported by others.[38] Only 4 per cent of serologic tests were positive for Streptococcus MG in Chicago (table 4); this figure is considerably lower than that for other parts of the United States.[38a] Horsfall[39] has stated that

32. Saphir, W., and Milzer, A.: Western Equine Encephalomyelitis in Chicago, J. A. M. A. **140**: 778-780 (July 2) 1949.
33. Zichis, J.: Personal communication to the author.
34. Paul, J. R., and Bunnell, W. W.: Presence of Heterophile Antibodies in Infectious Mononucleosis, Am. J. M. Sc. **183**: 90-104 (Jan.) 1932.
35. Davidsohn, I.: Serologic Diagnosis of Infectious Mononucleosis, J. A. M. A. **108**: 289-295 (Jan. 23) 1937.
36. Dr. Karl Singer of the Hematology Department of Michael Reese Hospital performed the hematologic studies.
37. Aikawa, J. K., and Meiklejohn, G.: The Serologic Diagnosis of Mumps: A Comparative Study of Three Methods, J. Immunol. **62**: 261-269 (July) 1949.
38. (a) Horsfall, F. L., Jr.: Primary Atypical Pneumonia, Ann. Int. Med. **27**: 275-281 (Aug.) 1947. (b) Smadel, J. E.: Atypical Pneumonia and Psittacosis, J. Clin. Investigation **22**: 37-45 (Jan.) 1943.
39. Horsfall, F. L., Jr.: Primary Atypical Pneumonia and Influenza, Bull. New York Acad. Med. **24**: 431-446 (July) 1948.

in approximately 50 per cent of patients with atypical pneumonia cold agglutinins or Streptococcus MG agglutinins develop and that these tests are of confirmatory value in diagnosis. The fact that such known virus and rickettsial diseases as psittacosis, influenza, lymphocytic choriomeningitis and Q fever may closely simulate atypical pneumonia serves to emphasize the diagnostic value of conducting serologic tests for patients with infections of the respiratory group. Furthermore, the full benefits of chemotherapy are more apt to be achieved if the exact etiologic basis of the disease is known. It must also be kept in mind that pulmonary tuberculosis, bacterial pneumonias, pulmonary mycoses or toxoplasmosis may present clinical manifestations which are indistinguishable from those of atypical pneumonia. In fact, Kunstadter, Whitcomb and I recently reported a proved, nonfatal case of primary histoplasmosis in a patient with the clinical observations of atypical pneumonia.[40]

The value of conducting routine serologic tests in infections caused by the encephalitides group of viruses is evident because these infections usually cannot be differentiated by clinical or pathologic observations. Two or more neurotropic viruses may be endemic in the same region, i. e., those of St. Louis encephalitis and Western equine encephalomyelitis in certain of the Western states.[41] Laboratory aid is also essential for the diagnosis of lymphocytic choriomeningitis because of the protean clinical manifestations that this virus produces.[42] Positive serologic evidence for mumps in the patients with meningoencephalitis without involvement of the salivary glands, as shown in table 5, and in other patients whose disease was diagnosed as nonparalytic poliomyelitis has been reported previously by others.[43] Complement fixation tests for lymphogranuloma venereum were not done in my patients with aseptic meningitis because the diagnostic antigen for this test was not available until recently. Those laboratory workers who plan to include tests for this virus in their routine diagnostic procedures must remember to corroborate positive results by the intradermal Frei test.[44] Otherwise an erroneous diagnosis might be made because cross fixations are known to occur between lymphogranuloma antigens and psittacosis.[45]

Approximately 14 per cent of the serologic tests exclusive of heterophil agglutination were positive in the 85 patients with fever of unknown origin (table 6). This is especially interesting because the usual bacteriologic diagnostic tests of these patients were negative. These results also emphasize the importance of conducting routine tests for virus and rickettsial disease for this category of patients so that an accurate diagnosis can be made and specific therapy instituted. Undoubtedly, the various possible clinical manifestations of the virus and rickettsial infections will be further elucidated in the future, when these tests are performed routinely on a widespread basis by many laboratories. Perhaps a higher percentage of positive results would have been obtained in this group of patients if it had been possible to include serologic tests for the various mycoses and toxoplasmosis in addition to the diagnostic antigens employed.

SUMMARY

1. The laboratory diagnosis of virus and rickettsial diseases is discussed with emphasis on those procedures which can be employed by the routine diagnostic laboratory. The complement fixation or in a few instances the hemagglutination inhibition tests are recommended as the procedures of choice for routine use. Close liaison must be maintained between the clinician and the laboratory so that the proper group of diagnostic antigens will be selected for tests in a given case, depending on the clinical observations.

2. Approximately 44 per cent positive results were obtained in routine serologic tests of 131 patients with atypical pneumonia. The positive results include 2 each for lymphocytic choriomeningitis and psittacosis-pneumonitis group, 4 influenza A, 6 influenza B, 1 Q fever, 38 cold agglutinins and 7 Streptococcus MG.

3. Approximately 14 per cent positive results were obtained in routine serologic tests of 89 patients with encephalitis or aseptic meningitis. These include 2 for Western equine encephalomyelitis (only 1 of which was confirmed), 3 for lymphocytic choriomeningitis and 8 for mumps meningoencephalitis. In addition, 8 of 44 patients with poliomyelitis showed serologic evidence for mumps infection.

4. Approximately 23 per cent of serologic tests were positive in 85 patients with fever of unknown origin. The positive results include 1 Western equine encephalomyelitis, 2 lymphocytic choriomeningitis, 5 mumps, 2 each for influenza A and B and 7 heterophil agglutination.

5. The value of conducting routine serologic tests for the virus and rickettsial diseases is discussed from the point of view both of diagnosis and of elucidation of the protean clinical manifestations that can be produced by these agents.

40. Kunstadter, R. H.; Whitcomb, F. C., and Milzer, A.: Primary Histoplasmosis with Recovery of Histoplasma Capsulatum from the Blood and Bronchial Secretions, J. Lab. & Clin. Med. 34:1290-1297 (Sept.) 1949.

41. Howitt, B. F.: Viruses of Equine and St. Louis Encephalitis in Relationship to Human Infections in California, 1937-1938, Am. J. Pub. Health 29:1083-1097 (Oct.) 1939. Hammon, W. McD., and Howitt, B. F.: Epidemiological Aspects of Encephalitis in the Yakima Valley, Washington: Mixed St. Louis and Western Equine Types, Am. J. Hyg. 33:163-185 (March) 1942.

42. Milzer, A.: Neurotropic Virus Infections in Chicago, 1939-1941; Nine Cases of Lymphocytic Choriomeningitis, Proc. Soc. Exper. Biol. & Med. 54:279-282 (Dec.) 1943; Armstrong,[39] Milzer, A., and Levinson, S. O.: Laboratory Infection with the Virus of Lymphocytic Choriomeningitis, J. A. M. A. 120:27-30 (Sept. 5) 1942. Treusch, J. V.; Milzer, A., and Levinson, S. O.: Recurrent Lymphocytic Choriomeningitis, Arch. Int. Med. 73:709-714 (Dec.) 1943.

43. Kilham, L.; Levens, J., and Enders, J. F.: Nonparalytic Poliomyelitis and Mumps Meningoencephalitis: Differential Diagnosis, J. A. M. A. 140:934-936 (July 16) 1949.

44. In a recent personal communication, Dr. K. F. Meyer states that many patients with proved psittacosis show positive reactions to Frei tests with lygranum[39] antigen (lymphogranuloma venereum antigen from the chick embryo).

45. Levine, S.; Holder, E. C., and Bullowa, J. G. M.: Complement Fixation for Lymphogranuloma Venereum and for Psittacosis with Frei Reactions Among Pneumonia Patients, J. Immunol. 46:183-188 (April) 1943.

Imperturbability.—In the physician or surgeon no quality takes rank with imperturbability, and I propose for a few minutes to direct your attention to this essential bodily virtue. Perhaps I may be able to give those of you in whom it has not developed during the critical scenes of the past month a hint or two of its importance, possibly a suggestion for its attainment. Imperturbability means coolness and presence of mind under all circumstances, calmness amid storm, clearness of judgment in moments of grave peril, immobility, impassiveness, or, to use an old and expressive word, phlegm. It is the quality which is most appreciated by the laity though often misunderstood by them; and the physician who has the misfortune to be without it, who betrays indecision and worry, and who shows that he is flustered and flurried in ordinary emergencies, loses rapidly the confidence of his patients. In full development, as we see it in some of our older colleagues, it has the nature of a divine gift, a blessing to the possessor, a comfort to all who come in contact with him.—Osler, William: Aequanimitas, Philadelphia, P. Blakiston's Son & Co., 1904, p. 3.

ANGINA PECTORIS DURING DECUBITUS

Hitherto Unrecognized Manifestation of Circulatory Failure

LOUIS A. SOLOFF, M.D.
Philadelphia

The term angina pectoris of decubitus was popularized by Vaquez [1] to describe a pain identical in nature, localization and distribution with angina pectoris of effort but occurring during the night when the patient is in a recumbent position. The pain frequently awakens the patient and tends to be of longer duration than that of angina pectoris of effort. There can be little doubt that Vaquez confused many cases of myocardial infarction with this syndrome. However, that there actually is a group of persons who have, at least temporarily, a predilection for what is exclusively or predominantly angina pectoris while in a recumbent position was clearly described by Sir Thomas Lewis,[2] who reported on angina pectoris in young persons with aortic regurgitation. He also stated that he had seen nocturnal angina pectoris in middle-aged men without valvular disease. Since this report, isolated cases of this syndrome have been reported. The literature was ably summarized in 1941 by Ernstene,[3] who reported 6 instances of this syndrome in young persons with aortic regurgitation. Numerous hypotheses have been advanced to explain the predilection of some persons for attacks of angina pectoris while in a recumbent position. The purpose of this report is to present evidence that this syndrome occurs in coronary artery disease and that it may be a manifestation of latent edema that pools into the lung and that responds to diuretics as rapidly as do the more common symptoms of dyspnea, cough and insomnia.

REPORT OF CASES

CASE 1.—M. S., a retired businessman aged 79, was first seen April 22, 1945 because of swelling of the ankles and precordial pain precipitated by walking two city blocks. In 1926 he had suffered a heart attack and had been in bed for seven weeks. In 1929 he had first experienced pain on walking. Physical examination revealed an unusually well preserved man for his age. The ankles were slightly edematous. The blood pressure was 110 systolic and 70 diastolic. There was an aortic and an apical systolic murmur. The electrocardiogram revealed an old, healed posterior infarct. He was digitalized, given both papaverine and aminophylline and instructed in the use of glyceryl trinitrate. He did well until 1947, when swelling of the ankles again developed. He was at this time placed on a salt-poor diet and given mercurophylline tablets to take three times a day on alternate weeks. On this regimen he did exceptionally well, spending winters in Florida and summers in Atlantic City without having to call on any doctor.

In the latter part of August 1949, while in Atlantic City, he began to have increasing nocturnal attacks of precordial pain that awoke him frequently. These attacks increased in frequency so that he was taking as many as 20 glyceryl trinitrate tablets a night. During the day he was entirely comfortable and needed no glyceryl trinitrate tablets. A local physician was called who at first increased the dose of digitalis and then reduced it because of slowing of the heart rate. Increasing amounts of sedatives and analgesics failed to prevent or decrease the attacks.

I saw the patient late in the afternoon on September 24. He was comfortable and free of pain. The ankles and feet showed edema (2 plus). There was no other clinical evidence of congestive failure. He had stopped taking the mercurial diuretic three weeks previously. He was hospitalized on September 29, and, after normal values for sodium, chloride and urea had been obtained, he was given 2 cc. of mercurophylline injection intramuscularly. During the next twenty-four hours he voided 3,600 cc. of urine. He was given three more injections of this drug and on each occasion passed excessive quantities of urine. The ankles and feet became free of edema. The attacks of nocturnal angina pectoris ceased, and the patient has been able, without sedation, to sleep comfortably throughout the night. He is again taking mercurophylline tablets. He has required no glyceryl trinitrate tablets at night since his discharge from the hospital.

CASE 2.—J. P., a mechanic aged 58, had a heart attack Aug. 12, 1949 and was treated by bed rest at home for three weeks. After one week of convalescence, he began to have, while in bed at night, attacks of precordial pain which required increasing numbers of glyceryl trinitrate tablets for relief. Because of this pain, he was advised by his family physician to return to bed. Bed rest, however, had no beneficial effect in relieving his pain. Indeed, he soon learned that he had no pain while sitting in bed or in a chair or even when going to the bathroom. Because of the pain at night, he preferred sleeping in a chair. He even took short walks out of doors against his physician's advice and discovered that he could do this without discomfort. His sleep at night continued to be interrupted by attacks of precordial pain. He was seen in consultation by several physicians. The opinions expressed varied from progressive coronary artery disease to a cardiac neurosis superimposed on healed myocardial infarction. He was admitted to the Temple University Hospital for study and treatment on October 10. Physical examination revealed a well preserved man with no recognizable signs of congestive failure. The blood pressure was 100 systolic and 80 diastolic. Clinical examination of the heart showed nothing remarkable. The electrocardiogram showed evidence of an old, healed anterior infarct. Because of my experience with the first patient, this patient was given 2 cc. of mercurophylline injection intramuscularly, which resulted in a prompt excessive diuresis that unfortunately was not measured accurately. Two succeeding injections likewise produced excessive diuresis, but of diminishing amounts. There was a prompt loss of nocturnal pain. Sleep continued uninterruptedly throughout the night. Since the patient's discharge from the hospital, a regimen of modified salt restriction, with a weekly or fortnightly injection of mercurophylline has prevented the recurrence of nocturnal pain.

CASE 3.—H. M., a merchant aged 49, had had rheumatic fever at 11 years of age. I first saw him on Nov. 2, 1944 for a routine cardiac study. He had no symptoms. Physical examination revealed a well developed man. The blood pressure was 140 systolic and 60 diastolic. The left ventricle was moderately enlarged, and auscultation revealed the presence of aortic valvular disease. He returned annually for reexamination and felt entirely well until the last week in October 1949. At this time, he first began to tire more quickly than previously. He noticed that lying on his left side at night was distressing to him. Later, he began to have actual pain at night. The pain awakened him and at times prevented him from falling asleep again. He was seen again on November 8, at which time no objective change was detectable by physical or fluoroscopic examination or in the electrocardiogram. He was, however, 9 pounds (4 Kg.) heavier than he had been at his last annual examination, six months before his present visit. Mercurophylline, 2 cc. intramuscularly, was administered. He reported two days later that he passed about 3 quarts (3,000 cc.) of urine. He lost 4 pounds (2 Kg.) during this interval. He was instructed on the advisability of abstaining from foods rich in salt and has been free of nocturnal pain.

COMMENT

The term angina pectoris of decubitus was attacked at its birth by Albutt,[4] who regarded the syndrome it purported to describe as a figment of Vaquez's imagi-

From the Department of Medicine, Temple University Hospital and Medical School.

1. Vaquez, H., in Laidlow, G. F.: Diseases of the Heart, Philadelphia, W. B. Saunders Company, 1924.
2. Lewis, T.: Angina Pectoris Associated with High Blood Pressure and its Relief by Amyl Nitrite, with a note on Nothnagel's Syndrome, Heart 18: 305, 1931.
3. Ernstene, A. C., and Schneider, R. W.: Angina Pectoris in Young Adults with Aortic Regurgitation: A Report of Six Cases, Am. J. M. Sc. 202: 737, 1941.
4. Albutt, cited by Vaquez.[1]

nation. More recently Riseman and Brown [5] have attacked the term as a misnomer and prefer to speak of angina on exertion, and angina during rest. They regard the symptom complexes as identical but believe that they are precipitated under different conditions. The fundamental causes of pain are, according to the present concept, identical, but the symptom complexes do have certain clinical differences and the different clinical conditions precipitating the attacks may require different treatment. Herein lies the value of the term. Angina pectoris of decubitus is usually of longer duration than angina pectoris of exertion. The patient, if articulate, will complain of a flushed, warm face with fulness in the neck in contrast to the pallid, cold face of angina of effort. The blood pressure and pulse rate are increased during the attack. We had opportunities to examine such a patient during many attacks, a young, intelligent lawyer who had recently had a coronary occlusion and whose nocturnal attacks were regarded by others as a manifestation of a cardiac neurosis because he was free of attacks during the day. But more important than the differences in symptom complex are the differences in treatment. The attack in each type of angina is terminated by glyceryl trinitrate therapy. However, angina on exertion is prevented by abolishing the type of exertion that produces the pain; angina during decubitus is abolished by restriction of salt and by the induction of diuresis.

This response to dehydration appears to indicate that attacks of angina pectoris during decubitus are produced by excessive work placed on the heart by the sudden increase in fluid return to the heart. Pain is not an infrequent manifestation of left ventricular failure, but it is frequently completely disguised by the more obvious symptom of dyspnea. As a sole manifestation of circulatory failure, it has apparently not been hitherto recognized.

Angina pectoris during effort and angina pectoris during decubitus may occur alone or together in the same person. Persons with angina pectoris during decubitus may so restrict their physical activity during the day that angina pectoris on effort does not occur. On the other hand, the abolition of angina pectoris during decubitus by a dehydration regimen may make the patient feel so much better that he is more active during the day and thereby precipitates angina pectoris on effort. This change is illustrated by the patient in case 1 who became free of angina pectoris during decubitus and resumed his daily activities to such an extent that he required a rare tablet of glyceryl trinitrate during the day but slept uninterruptedly during the night. This sequence of events seems to indicate that the immediate precipitating mechanism, coronary insufficiency, is identical in both conditions, but that the mechanism of the production of this insufficiency is different in both types of angina. Hence, the treatment is different.

SUMMARY

1. Three cases of angina pectoris during decubitus that responded to a dehydrating regimen are described.

2. It is suggested that this syndrome is a manifestation of congestive circulatory failure.

3. The term angina pectoris during decubitus is regarded as useful because the treatment of this condition differs from that of angina pectoris on effort.

5. Riseman, J. E. F., and Brown, M. G.: An Analysis of the Diagnostic Criteria of Angina Pectoris: A Critical Study of One Hundred Proved Cases, Am. Heart J. 14: 331, 1937.

USE OF SODIUM PROPIONATE IN EXTERNAL INFECTIONS OF THE EYES

FREDERICK H. THEODORE, M.D.
New York

The lower fatty acids have recently been shown to be of great value in the treatment of external infections of the eyes. Sodium propionate (C_2H_5COONa), the sodium salt of one of these acids, has now been used in about 1,200 patients with infections of the lids, conjunctiva and cornea, and the results obtained compare most favorably with those noted with other antibiotics. Experimental studies have also been made. The drug is virtually nontoxic; it is effective against all the bacteria causing common ocular infections and against fungi, whose importance in blepharitis is now being appreciated, and its use does not result in allergies or sensitivities. These and other advantages will be detailed later.

HISTORY OF FATTY ACID THERAPY

For the complete history of the development of the medical use of the lower fatty acids the reader is referred to the papers of Peck and Russ [1] and of Theodore.[2] Fatty acid therapy was introduced by Peck and his co-workers [3] in 1939, after they had demonstrated in 1938 [4] that human sweat was fungistatic because of its content of the lower fatty acids. They used sodium propionate clinically. It was later demonstrated by Keeney [5] that sodium propionate was effective not only against pathogenic fungi but against some common bacteria as well.

The present day applications of the fatty acids (derivatives of propionic, caprylic and undecylenic acids are in general use) include: (1) dermatology, for mycotic and secondary bacterial infections; (2) gynecology,[6] for mycotic vulvovaginitis; (3) ophthalmology, for external diseases; (4) otology, for mycotic external otitis; (5) foods,[7] as a mold inhibitor in bread, cake and dairy products, and (6) nonirritating adhesive tape.[8] Perlman [9] has recently advocated the oral use of undecylenic acid for psoriasis and neurodermatitis. The lack of toxic manifestations and local irritation or sensitivity from the therapeutic use of the fatty acids has been stressed by all authors.

PROPERTIES OF SODIUM PROPIONATE

Sodium propionate is apparently nontoxic, even when ingested in relatively large quantities. It is soluble in water in solutions up to 40 per cent. The solutions are colorless and are stable even when boiled.

From the Mount Sinai Hospital and the Manhattan Eye, Ear and Throat Hospital.

1. Peck, S. M., and Russ, W. R.: Propionate-Caprylate Mixtures in the Treatment of Dermatomycoses, Arch. Dermat. & Syph. 56: 601-613 (Nov.) 1947.

2. Theodore, F. H.: Use of Propionates in Ophthalmology, Arch. Ophth. 41: 83-94 (Jan.) 1949.

3. Peck, S. M.; Rosenfeld, H.; Leifer, W., and Bierman, W.: Role of Sweat as a Fungicide, Arch. Dermat. & Syph. 39: 126-146 (Jan.) 1939.

4. Peck, S. M., and Rosenfeld, H.: The Effects of Hydrogen-Ion Concentration, Fatty Acids and Vitamin C on the Growth of Fungi, J. Invest. Dermat. 1: 237-265 (Aug.) 1938.

5. Keeney, E. L.: The Fungistatic and Fungicidal Effect of Sodium Propionate on Common Pathogens, Bull. Johns Hopkins Hosp. 73: 379-390 (Nov.) 1943. Keeney, E. L.; Ajello, J.; Broyles, E. N., and Lankford, E.: Propionate and Undecylenate Ointments in the Treatment of Tinea Pedis and an In Vitro Comparison of Their Fungistatic and Antibacterial Effects with Other Ointments, ibid. 73: 417-439 (Dec.) 1944.

6. Alter, R. L.; Jones, C. P., and Carter, B.: The Treatment of Mycotic Vulvovaginitis with Propionate Vaginal Jelly, Am. J. Obst. & Gynec. 53: 241-244 (Feb.) 1947.

7. Hoffman, C.; Schweitzer, T. R., and Dalby, G.: Fungistatic Properties of the Fatty Acids and Possible Biochemical Significance, Food Research 4: 539-545 (Nov.-Dec.) 1939.

8. Peck, S. M.; Rosenfeld, H.; Li, K. K., and Glick, A.: The Mechanism of Adhesive Plaster Irritation, J. Invest. Dermat. 10: 367-376 (May) 1948.

9. Perlman, H. H.: Undecylenic Acid Given Orally in Psoriasis and Neurodermatitis, J. A. M. A. 139: 444-449 (Feb. 12) 1949.

In aqueous solution, Acetobacter may form a sediment on standing. This can be avoided by the use of 0.5 per cent methyl parahydrobenzoate or benzalkonium chloride in a 1:50,000 dilution. Sodium propionate has been used in the eyes of rabbits in solutions as high as 20 per cent and in the human eye in 15 per cent solution, with only transitory burning and redness being noted. For constant use a 5 to 10 per cent solution is recommended. The 5 per cent solution, especially when buffered to a p_H of 7 to 7.3, causes no stinging at all when instilled. The drug appears to be compatible with the vasoconstrictors and anesthetics often used in ocular therapeutics, and it has a prolonged action when used in the eye.

FUNGISTATIC AND ANTIBACTERIAL SPECTRUM OF SODIUM PROPIONATE

Table 1 shows the groups of fungi and bacteria that are known to be influenced by sodium propionate. As regards fungi, perhaps the most important species in ophthalmology is the Pityrosporum ovale, whose growth is inhibited by the drug. The list of bacteria against which the effects of sodium propionate have been studied is as yet incomplete.

In eye infections by far the most commonly incriminated organism is the staphylococcus, an organism exceedingly resistant to antibiotics. Sodium propionate is effective against it, and bacterial fastness appears to develop slowly, if at all. The effect of sodium propionate against Pseudomonas aeruginosa (Bacillus pyocyaneus) is of considerable practical importance in ophthalmic practice. Of all the antibiotics used locally, only streptomycin is superior in its action against the organism; penicillin, aureomycin, tyrothricin, bacitracin and the sulfonamide compounds now in general use have little effect against Ps. aeruginosa.

ANIMAL EXPERIMENTS WITH SODIUM PROPIONATE

The corneas of eyes of rabbits were infected with suspensions of the following organisms: Staphylococcus aureus, hemolytic streptococci, Klebsiella pneumoniae, Escherichia coli and Ps. aeruginosa. In each rabbit, one eye was immediately treated with sodium propionate solution (10 to 15 per cent); none of the treated eyes became infected. In the untreated eyes, in almost every instance, severe corneal ulcers developed.

In another series, after corneal ulcers due to the same organisms had developed, treatment was started with sodium propionate. The treated eyes did much better than the untreated controls. The earlier treatment began, the better was the result.

Sterile abrasions of the cornea, as well as acid and alkali burns, were treated with 10 per cent solution of sodium propionate. By comparison with untreated controls, it was established that the drug in 10 per cent concentration did not cause opacities and appeared to facilitate healing. In contradistinction, antibiotics, especially the sulfonamide drugs, and other commonly used ocular antiseptics and anesthetics have been found, under similar conditions, to cause corneal opacities and to delay epithelial regeneration.[10]

CLINICAL RESULTS

Sodium propionate has now been used in about 1,200 cases of conjunctivitis, blepharitis and keratitis of various types and severity. In a preliminary communication complete studies on 400 cases, 160 of which were fully evaluated bacteriologically, were reported. A subsequent evaluation of 238 cases, in which cultures, smears and epithelial scrapings were done, is shown in table 2. Since results were comparable to those reported in the first paper,[2] a detailed statistical analysis is not included in this report. Following is a general summary of clinical results based on all cases in which sodium propionate has been used to date.

Acute Bacterial Conjunctivitis.—In acute conjunctivitis due to the usual ocular pathogens, the use of 5 per cent sodium propionate solution results in decided improvement within forty-eight to seventy-two hours in almost every case. Moreover, the relief of symptoms such as burning and itching is noted at once, before objective improvement is seen. Cases of conjunctivitis due to the gonococcus and meningococcus have not been treated.

Acute Virus Conjunctivitis.—Sodium propionate does not appear to alter the course of epidemic keratoconjunctivitis or acute follicular conjunctivitis of Béal, although subjective relief occurs. The short duration of the disease noted in some of the cases under observation was probably fortuitous. Cases of acute trachoma and inclusion conjunctivitis were not treated.

Allergic Conjunctivitis.—The use of sodium propionate in vernal catarrh and hay fever has given results proved superior objectively as well as subjectively to those with antihistaminics used locally, in many instances. This may be due to its antibacterial effect, in addition to its soothing action, which has been noted on other mucous membranes. The fact that sensitivity to the drug is rare makes it an especially valuable agent in any infection occurring in an allergic person, or in cases in which a drug sensitivity has already occurred in the course of treatment.

Chronic Conjunctivitis.—The results of sodium propionate therapy in chronic conjunctivitis in general have been excellent. Not enough infections due to Hemophilus duplex, the diplobacillus of Morax-Axenfeld, have been treated to come to any conclusions with regard to this organism.

Chronic Blepharoconjunctivitis.—Chronic blepharoconjunctivitis is recognized as the most difficult of

TABLE 1.—*Growth-Inhibiting Properties of Sodium Propionate*

Sodium propionate inhibits growth of the following fungi:		
Trichophyton	Candida (Monilia)	Aspergillus
Epidermophyton	Torula	Blastomyces
Microsporum	Coccidioides	Actinomyces
	Pi. ovale	
Sodium propionate inhibits growth of the following bacteria:		
Staph. aureus	Streptococci of the viridans group	Esch. coli
Staph. albus	Pneumococcus	B. subtilis
Hemolytic streptococci	Ps. aeruginosa	B. enteritidis
	Kleb. pneumoniae	

(Other bacteria have not yet been studied.)

TABLE 2.—*Results with the Local Use of 5 Per Cent Solution of Sodium Propionate in 238 Bacteriologically Studied Cases*

	Number of Cases	Improvement		
		Marked	Moderate	None
Acute bacterial conjunctivitis...	120	112	13	5
Chronic conjunctivitis.....	18	15	2	1
Chronic blepharoconjunctivitis..	50	44	13	9
Other chronic lid infections.....	10	7	2	1
Corneal ulcers.....	21	16	3	2
Totals.....	220	194	33	11

10. Bellows, J. G.: Influence of Local Antiseptics on Regeneration of Corneal Epithelium of Rabbits, Arch. Ophth. **30**:70-81 (July) 1946.

external ocular infections to treat successfully. There appear to be three main varieties[11]: (1) ulcerative, due to toxic staphylococci; (2) seborrheic, considered to be due to the yeast Pi. ovale, and (3) a mixed type, with both of these organisms being present in significant numbers. Even in infections of the first type, the sulfonamide drugs and antibiotics often prove to be of little permanent value because of the development of bacterial resistance to these agents and of drug sensitivity. Furthermore, in the infections due to yeasts they are practically of no value. Thus a drug such as sodium propionate, which has both fungistatic and antibacterial properties and causes few sensitivities, would appear especially indicated. The results with sodium propionate were gratifying, especially in the group of infections with a seborrheic component.

It should be emphasized, however, that the home use of any drug by the patient will not in itself effect a cure in chronic blepharoconjunctivitis of any severity. Treatment must include lid massage, application to the lid margins of medicaments like silver nitrate and, perhaps, the use of toxoids of vaccines. Often a systemic component or deficiency may be present, which should be corrected. In the seborrheic habitus the amount of fatty acids secreted is considered by some workers to be greatly diminished and altered in character, and the saprophytic staphylococci, streptococci and yeast, such as Pi. ovale, that are normally present increase vastly in number and may take on pathogenic characteristics.[12]

Corneal Infections.—Sodium propionate is efficacious in the ordinary catarrhal corneal ulcer of bacterial origin; in the more severe central types it has been used in fewer cases. In some especially severe cases, after trial with penicillin, aureomycin and sulfonamide drugs had failed, sodium propionate proved effective. In the particularly malignant corneal ulcer due to Ps. aeruginosa it is superior to all the antibiotics available for topical administration except streptomycin, and it does not cause the local tissue irritation which delays healing, as streptomycin does.

Sodium propionate is not effective against keratitis of virus causation. In types due to deficiency, such as keratoconjunctivitis sicca and the rosacea type, it has been of value in controlling the severity of the condition.

COMMENT

Clinical experimental studies appear to establish the value of the local use of sodium propionate in infections of the external eye and other associated conditions. By and large, clinical results with it are as good in the average acute infection, as with any of the newer antibiotics. For this reason, and because of its economy, stability and hypoallergenicity, its use in these cases is indicated. In chronic infections of the lids its dual fungistatic and antibacterial properties should make it a drug of choice. Its soothing character and the relative lack of sensitivity reactions to this drug make it a valuable adjunct in the treatment of ocular allergies and other types of chronic inflammation about the eye for which no specific agent is available. Often, in these conditions the antibiotics aggravate the ailment because of the sensitivities that occur with their prolonged use.

Routine use of sodium propionate after the removal of corneal foreign bodies is especially recommended to those physicians engaged in industrial practice, as a prophylaxis for the dreaded corneal ulcer due to Ps. aeruginosa. This organism often grows in the fluorescein solution instilled for the detection of corneal abrasions; the eye may thus be infected in this way as well.

The general concept of using physiologic substances, such as the fatty acids, in the treatment of disease is stimulating. As Peck stated,[13] just as simple organisms like Penicillium notatum produce antibiotics for their protection, so does the body produce human antibiotics to defend itself against bacteria, fungi and perhaps even viruses. Further elaboration of this thought may lead to new approaches in therapeutics.

SUMMARY

The lower fatty acids are nontoxic physiologic antibiotics and fungicides. Sodium propionate, a fatty acid derivative, has been used clinically in about 1,200 cases of conjunctivitis, blepharitis and keratitis. It has proved efficacious and nonirritating and is advocated as a supplement to or substitute for other therapeutic agents now in general use.

667 Madison Avenue (21).

11. Thygeson, P.: Etiology and Treatment of Blepharitis, Arch. Ophth. 36:445-477 (Oct.) 1946.
12. Peck, S. M.: Personal communication to author.
13. Peck, S. M., in discussion on Theodore, F. H.: Use of Propionates in Ophthalmology, read before the Section of Ophthalmology, New York Academy of Medicine, April 19, 1948; to be published.

AN APPRAISAL OF CANCER DETECTION CENTERS

HOWARD W. JONES Jr., M.D.
and
W. ROSS CAMERON, M.D.
Baltimore, Md.

To promote the maintenance of health in the individual, the medical profession for many years has been advocating the more widespread use of the periodic general physical examination. It is recognized, however that the extensive application of this complex and relatively expensive procedure in the detection of a specific disease like cancer still is of debatable value.

Since Nov. 1, 1946 the Maryland Division of the American Cancer Society and the Maryland State Department of Health, together with cooperating medical societies and hospitals, have operated a network of cancer detection centers. In December 1947 we reported the results in the examination of 1,709 presumably well persons.[1] We propose to present herein the data on 8,152 examinations, as well as an appraisal of the current status of this departure in the field of medical service.

DISTRIBUTION OF CENTERS

The State of Maryland is composed of the City of Baltimore, with a population of 930,000, and twenty-three counties with a total population of 1,112,251.[2]

In Baltimore there are three detection centers. One is located in the Johns Hopkins Hospital and one in the University of Maryland Hospital, with one session in each per week and appointments limited to 20 persons per session. The third, for Negro patients, is situated in Provident Hospital. It has monthly sessions with an appointment list limited to 10 persons.

In the counties there is a total of twenty centers, with one in each of seventeen counties and three in Baltimore County, which has the largest population. In these

1. Jones, H. W., Jr., and Cameron, W. R.: Case-Finding Factors in Cancer Detection Centers, J. A. M. A. 135:964 (Dec. 13) 1947.
2. Estimates of the State of Maryland Department of Health for the year 1946.

eighteen counties the total population is 745,264, or 69.7 per cent of the total in all counties. In the five remaining counties, representing 30.3 per cent of the population, centers have not yet been opened. Detection centers are located either in the county health department or in the local hospital, whichever provides the most suitable facilities. Sessions are limited to one per month, with the examination of a maximum of 10 persons per session.

TABLE 1.—*Total Males Examined, by Diagnosis and by Age (Nov. 1, 1946 to April 30, 1949)*

Age Group	Total Males Examined	Number of Persons		
		Well	With Cancer	With Other Conditions
All ages	1,682	903	15	764
5 to 9	4	2	..	2
10 to 14	5	5	..	..
15 to 19	7	3	..	4
20 to 24	55	40	..	15
25 to 29	130	97	..	33
30 to 34	290	182	1	107
35 to 39	294	182	..	112
40 to 44	252	146	..	106
45 to 49	212	106	1	105
50 to 54	137	68	4	65
55 to 59	118	55	5	58
60 to 64	74	31	1	42
65 to 69	47	16	..	31
70 to 74	24	8	1	15
75 and over	13	2	2	9

COMPOSITION OF THE STAFF

In the efficient operation of a cancer detection program, our experience indicates that it is of extraordinary importance to employ only highly qualified physicians who may be depended on to maintain high standards of performance. The majority of our examiners are specialists certified by their respective specialty boards although this is not a prerequisite. For the most part, also, they are members of the faculty of one of the two medical schools in Maryland, as well as members of the staff of the hospital in which they serve.[3]

In the county centers the examiners, usually in pairs, travel from Baltimore for distances ranging from 12 to 150 miles. Whenever qualified local physicians are available, however, we have encouraged their employment, but county medical societies as a rule have expressed a preference for "outside" examiners. In one county where a competent local physician was employed, the medical society requested that he be replaced by an examiner from another area.

DETECTION CENTER STATISTICS

In tables 1 and 2 data are shown on 8,152 persons examined in Maryland by age, sex and diagnosis, from Nov. 1, 1946 to April 30, 1949. By adding the totals for both sexes, it will be noted that 4,314 (or 53.0 per cent) were classified as well persons, 46 (0.5 per cent) were found to have cancer and 3,792 (46.5 per cent) had other pathologic conditions. In the centers in the counties of Maryland the proportion of persons with cancer (0.8 per cent) and with other conditions (50.7 per cent) is somewhat higher than in the centers in the City of Baltimore (0.3 per cent and 44.1 per cent, respectively).

In accordance with our standards, a person classified as well may have some minor condition, such as asymptomatic pes valgoplanus (flat feet), for which therapy is not indicated. With the five exceptions noted later, a positive tissue diagnosis was obtained in all cases classified as cancer. Persons were classified as having other conditions, major or minor, only when such conditions were regarded as being of sufficient importance to warrant referral to their family physicians for advice or treatment.

In reporting cancer in the detection centers in Maryland, we have insisted on a microscopic confirmation of the diagnosis except in 4 skin cancers treated by experienced radiologists without biopsy and 1 lung cancer not treated because of the advanced age of the patient. There were a number of persons with suspicious lesions or symptoms in whom a definite diagnosis could not be made in the center without further examination. In these persons a final diagnosis of cancer was made after more detailed studies by their own physician. Although discovery of their lesions was a direct but delayed result of the examination at the detection center, these persons were not classified as discovered cases. They are, however, included in the follow-up statistics.

In males the sites of the detected cancers were: skin 10, lip 3, stomach 1 and lung 1. In females the sites were: cervix 13, skin 10, breast 6, lip 1 and rectum 1.

All the lesions of the cervix were diagnosed by biopsies of tissue obtained in the centers where some of the skin and lip lesions also were biopsied, but tissue from other lesions was examined microscopically by the physician who gave the definitive therapy. Tissue from 3 mammary lesions and 1 rectal lesion was secured immediately before treatment.

In essence, we have classified as cancers only malignant lesions occurring in sites which lend themselves to detection. The diagnosis of cancer in other sites requires the use of technic not generally available in our centers. Cancers diagnosed after study undertaken at the suggestion of the center have been included in a separate category.

Although the examination in all centers is essentially the same and should disclose the large majority of lesions in detectable sites, in one center the scope of the examination is extended to include a routine gastrointestinal series, making gastric neoplasm theoretically

TABLE 2.—*Total Females Examined, by Diagnosis and by Age (Nov. 1, 1946 to April 30, 1949)*

Age Group	Total Females Examined	Number of Persons		
		Well	With Cancer	With Other Conditions
All ages	6,470	3,581	31	3,858
5 to 9	6	2	..	4
10 to 14	9	7	..	2
15 to 19	23	16	..	7
20 to 24	248	147	..	101
25 to 29	691	440	1	250
30 to 34	968	531	2	435
35 to 39	1,144	632	5	507
40 to 44	1,024	530	6	488
45 to 49	844	407	5	432
50 to 54	661	310	4	347
55 to 59	425	208	4	213
60 to 64	249	109	2	138
65 to 69	108	46	..	62
70 to 74	55	29	..	27
75 and over	24	8	2	14

3. Clinicians currently serving on the staff of one or more cancer detection centers are: Drs. C. Bernard Brack, Ernest I. Cornbrooks Jr., Raymond M. Cunningham, William Diehl, Everett S. Diggs, Gerald A. Galvin, William E. Gilmore, William E. Gross, Donald Hebb, Theodore Kardash, J. H. Mason Knox 3d, Edward Lewitus, Frank Ford Lohr, John Duer Mooers, Glenford Munsenden, Irving Leonard Ochs, Rose Z. Pierpont, Edward H. Richardson Jr., Stuart Rizika, William H. Sawyer, Robert Sheppard, E. Roderick Shipley, Edwin H. Stewart Jr., Douglas H. Stone, Henry Welcome and J. Donald Woodruff.

detectable in that particular facility. In the nondetectable sites, however, the findings cannot be expected to be complete.[1]

The variation in the published reports of the percentage of cancer detected in other programs throughout the country seems to be explainable, in some measure at least, by the variation in diagnostic criteria. If the results in one center or in a group of centers are to be compared, it is obvious that the criteria for diagnosis must be standardized and more precise methods of classifying the data must be adopted. We therefore advocate the universal adoption of such a classification of criteria as was developed at the Conference on Cancer Detection sponsored by the American Cancer Society, Incorporated, Wentworth-by-the-Sea, Portsmouth, N. H., Sept. 9, 10 and 11, 1949. In the future we shall classify and report our results in accordance with the recommendations of that conference.

TABLE 3.—*Total Number and Percentage of Well Persons, with Cancer and with Other Conditions at Maryland Detection Centers, by Center (Nov. 1, 1946 to April 30, 1949)*

Place of Examination	Total	Total			Percentage		
	Total Examinees	Well Persons	With Cancer	With Other Conditions	Well Persons	With Cancer	With Other Conditions
All centers	8,152	4,314	46	3,792	52.9	0.5	46.5
Hagerstown	232	105	1	127	45.1	0.4	54.5
Frederick	234	107	2	125	45.7	0.9	53.4
Westminster	194	79	..	115	40.7	...	59.3
Ellicott City	115	44	..	71	38.3	...	61.7
La Plata	140	52	..	88	37.1	...	62.9
Leonardtown	104	46	1	57	44.2	1.0	54.8
Prince Frederick	113	46	2	62	42.3	1.8	55.9
Annapolis	188	102	1	85	54.3	0.5	45.2
Catonsville	40	30	..	10	75.0	...	25.0
Essex	90	55	3	32	60.5	1.1	35.6
Towson	112	76	1	35	67.9	0.9	31.2
Havre de Grace	160	78	2	80	48.7	1.3	50.0
Elkton	318	129	3	186	40.9	0.6	58.5
Chestertown	10	6	..	4	60.0	...	40.0
Centerville	161	81	1	79	50.3	0.6	49.1
Easton	9	5	..	4	55.6	...	44.4
Denton	174	94	..	80	54.4	...	46.0
Cambridge	148	66	..	82	44.6	...	55.4
Salisbury	456	249	9	198	54.6	2.0	43.4
Snow Hill	9	6	..	3	66.7	...	33.3
Total Counties	3,606	1,456	27	1,525	40.5	0.8	50.7
Johns Hopkins Hospital	2,017	848	7	1,162	42.1	0.3	57.6
Provident Hospital	107	29	..	78	27.1	...	72.9
St. Agnes Hospital	958	462	1	495	48.1	0.1	50.8
University Hospital	2,064	1,319	11	734	64.0	0.4	35.6
Total Baltimore City	5,146	858	19	2,369	55.6	0.3	44.1

The age-specific diagnosis can be derived from tables 1 and 2. It will be observed that the percentage of cancer varies from 0.1 per cent in the age group 25 to 29 years to 10.8 per cent in those aged 75 and over. It also will be noted that, in general, the proportion of well persons decreased with advance in age, with an increase in the percentage of persons with other conditions.

In table 3 the examinees and percentages are set forth by center and by diagnosis. It will be observed that there was a wide variation in the number of persons examined in the various centers, some of which have been in operation longer than others. From center to center, a variation also will be noted in the proportion of persons with cancer as well as in the percentage of well persons and those with other conditions. These differences probably are not significant, for in many instances the numbers are small and it is expected that these proportions will become more constant as the totals increase.

FOLLOW-UP OF EXAMINEES

To assist in evaluating the work in the centers and to determine the extent to which the recommendations of the examiners are followed, these procedures have been adopted:

1. Well persons receive a card six months after examination inquiring whether, in the meantime, they have: (*a*) had no complaints; (*b*) had complaints but not seen a physician, and (*c*) seen a physician for (1) a minor complaint or (2) a major complaint.

2. Persons with cancer, with other major as well as other minor conditions, are followed up two months after examination. Appropriate letters are sent both to persons in these categories and to the physician. To obtain as complete a follow-up as possible, it has been necessary for a public health nurse to visit at home a few persons classified as having cancer as well as a larger number of those with other conditions who failed to reply to our communications.

TABLE 4.—*Follow-Up Six Months After Examination of 1,793 Persons Originally Classified as Well*[*]

Location of Centers	Total Well Persons Followed	Without Complaints		With Complaints, but Physician Not Consulted		Physician Consulted for			
						Major Complaint		Minor Complaint	
		No.	%	No.	%	No.	%	No.	%
Counties	567	351	69.2	21	4.0	12	2.49	123	24.3
City of Baltimore	1,226	782	60.8	67	5.2	49	3.87	388	30.2
Total	1,793	1,133	63.2	88	4.9	61	3.4	511	28.5

[*] This represents a 61.5 per cent successful response from 2,654 well persons who received but a single follow-up postcard.

In tables 4 and 5 the results of attempts to follow the first 5,353 persons of the total of 8,152 examinees is set forth. In well persons the follow-up was considered unsuccessful if the subject failed to reply to a card; in those with minor conditions, if the physician did not answer our letters. In those with cancer and with other major conditions the follow-up procedures were as complete as possible, sometimes involving telephone calls to the patient or his physician as well as home visits by the public health nurse. There was little difference between the proportion of successful follow-up in the counties and in the City of Baltimore.

TABLE 5.—*Follow-Up Six Months After Examination of 1,060 Persons with Tentative Diagnosis of Other Minor Condition, and Follow-Up Two Months After Examination of 412 Persons with Tentative Diagnosis of Other Major Condition; Final Diagnosis Was Confirmed by Attending Physician*

Other Condition	Follow-up Success		Final Diagnosis in Followed Cases			
			Other Condition		Cancer	
	No.	%	No.	%	No.	%
Minor	1,060/1,880	56.1	1,053	99.3	7	0.7
Major	412/517	79.7	405	98.3	7	1.7

Table 4 shows the observations in 1,793 well persons six months after examination. It will be observed that 1,133 (63.2 per cent) had no complaints; 88 (4.9 per cent) had complaints but had not visited a physician; 61 (3.4 per cent) had visited a physician for a major complaint, and 511 (28.5 per cent) had consulted a physician for a minor complaint. Here also no significant difference is noted between the percentages of successful follow-up in the county and in the city. The

follow-up was successful on all 34 persons with a tentative diagnosis of cancer. In 33 cases the diagnosis was confirmed and the patients were receiving treatment from their physicians. One aged man with two basal cell epitheliomas of the face had not received treatment because he declined to follow the advice of the detection center clinicians and his physician.

In table 5 will be noted the results of the follow-up of 412 persons in whom major conditions other than cancer were found for which prompt medical attention was urged. This group included those in whom cancer might subsequently be found, although its detection in the center was not possible because of the limited scope of the examination. In 405 persons (88.3 per cent) the diagnosis made in the center was confirmed by the physician; in 7 (1.7 per cent) the diagnosis was changed to cancer. These results represent an important by-product of the detection center activities.

Table 5 also indicates the result of the follow-up of 1,060 persons with minor conditions for which medical attention was recommended. In 1,053 (99.3 per cent) the diagnosis was confirmed by the physician, and in 7 (0.7 per cent) a diagnosis of cancer was made.

In the 412 persons with major conditions, the sites of the seven carcinomas were the cervix, the glands of the neck with no primary focus, the body of the uterus, the liver, the esophagus, the pancreas and the skin. In the 1,060 persons with minor conditions the sites of the cancers were the ovary (in 2 persons), the stomach, the brain, the cervix, the fundus of the uterus and the skin (melanoma).

From the foregoing analysis it is clear that in persons with major conditions the proportion of cancers subsequently found by the physician (1.7 per cent) was more than double the proportion ultimately discovered in those with minor conditions (0.7 per cent).

It is recalled that a total of 46 cancers were found originally in these centers in 8,152 examinees. It has been observed that 14 additional cases were reported subsequently in 3,299 persons who were successfully followed. If the same rate should prevail in the remaining 4,853 persons on whom reports have not yet been received, 21 other cases would be added. If one adds to these 14 real and 21 theoretic cases the 46 cancers originally discovered, there would be a total of 81 carcinomas detected in 8,153 examinees. This represents a potential case-finding rate of approximately 1.0 per cent.

APPRAISAL OF THE PROGRAM

A Case-Finding Procedure.—The percentage of cancers discovered in presumably well persons in all age groups has varied with reports from different parts of this country, but in general the figure ranges from 0.5 to 1.0 per cent. Although this proportion is relatively low, many early, asymptomatic cancers have been brought to light in detection centers. One scarcely can question the value of discovering an early lesion with a favorable diagnosis.

Incidental Observations.—In addition to the discovery of cancer, it has been found that the detection center examination of comprehensive scope discloses many other important conditions influencing the well-being of apparently healthy persons. In our series, 44 per cent of men and 47 per cent of women were referred to their physicians for medical attention. Approximately 10 per cent of these persons had conditions which were regarded as being of a serious nature, while the remainder appeared to be of lesser importance.

In the majority of instances the persons referred to physicians received prompt and competent medical service. It has been reported, however, that in a small but not insignificant number of cases, the physician made light of the findings of the detection center examiner and did not take the time to examine the patient or to refer him to another physician. An additional unfortunate by-product is that a number of unnecessary surgical operations appear to have been performed for minor conditions. Although the incidence of such operations is low and, so far as is known, serious consequences have not ensued, these reports have been a cause for concern.

Influence on Local Medical Standards.—It has been emphasized that examinations at detection centers must be thoroughly and competently performed. The examinees discuss the scope and details of the examination with their relatives and friends. There is intense public interest in the program. In many centers appointments are booked three to twelve months in advance. It would be impracticable and inappropriate to attempt to meet the demand. It is considered much more important to encourage the wider use of a general physical examination by local physicians.

The examination of 10 persons per month in a given community covers an infinitesimal part of the population, but its influence can assume much greater proportions. Detection centers have come to be regarded as demonstrations of the physical examination of general scope, rather than a method of screening the population for a specific disease. These centers serve to remind the population that a thorough physical examination is an important procedure and that this type of service should be obtained in the offices of physicians.

The creation of a demand for a careful physical examination seems certain eventually to result in higher standards of medical service in that community. Indeed, in a number of localities there is increasing evidence of interest on the part of physicians in their expressed desire to include examinations of this type in the routine of their practice. The number of requests by physicians for copies of the examination records in use in the cancer detection centers is regarded as concrete evidence of this awakening interest.

It has been considered much more important to examine a few persons carefully and well than to attempt to screen large numbers of persons quickly and inadequately. For this reason, therefore, any attempt to simplify the examination for cancer or to restrict it to certain sites in our opinion seriously decreases the value of this program.

Creation of Cancerophobia.—Before the inauguration of this program, the possibility of creating cancerophobia was carefully considered by those responsible for its direction. It was believed that the program should be conducted in such a way as to allay the fears of those who think they have cancer and to avoid, so far as possible, the stimulation of fears in others. We have observed, and our examiners frequently have reported, that the large majority of examinees are not hysterical but calm, well balanced persons who believe that they are exercising good judgment in undergoing a physical examination.

To determine conclusively whether the program actually is creating cancerophobia would require much more detailed study than we have been able to make. This subject, however, has been given a considerable amount of attention. As yet, we have not noted a

single case of what might be termed cancerophobia which did not exist, either in its current form or in some other type of phobia, prior to the beginning of the program. In those cases which have come to our attention, the receipt of a negative report seemed to decrease the sense of fear. We strongly suspect, however, that such persons promptly transferred their anxiety to some other field. In the light of our experience, therefore, we cannot subscribe to the point of view that detection centers create cancerophobia.

Relation of Detection Centers to Private Practice.—To some it might appear that the offering of free examinations to apparently well persons is an invasion of the prerogatives of the private practitioner. Such a program may appear even more menacing when it is recalled that the patient is admitted to the center voluntarily and without the formality of being referred by a physician. As the program has developed, however, the following points have become increasingly clear:

(*a*) The centers serve as demonstrations providing careful and comprehensive examinations for a few persons, and create in that community a demand for periodic physical examinations.

(*b*) The centers have demonstrated that in a large proportion of presumably well persons there exist a significant number of lesions of early cancer and a high proportion of other important conditions, many of which require prompt medical attention.

(*c*) Treatment is not provided in these centers, and every patient with significant abnormality is referred to a private physician for further study.

(*d*) Instead of diminishing the medical care needs of the community, the program creates demand for medical service which did not previously exist.

Cost of the Program.—The cost of discovering a single cancer is frequently advanced as criterion for evaluating a new service of this type. During the fiscal year Sept. 1, 1947 to Aug. 31, 1948, 3,639 persons were examined in detection centers at a cost to the cancer society of $29,475.90, or $8.10 per person. The cost to the health department is difficult to determine, because many of the services rendered are incidental to other functions of that agency, but the total is believed to be at least equal to that of the cancer society. This brings the estimated cost to about $16.20 per person. No charge was made to the person examined. During this same period 17 cancers were found in the centers at a cost to the society and the department of approximately $3,468 per case. From the point of view of these 17 persons in whom early cancer with a favorable prognosis was detected, the cost undoubtedly would not be considered too high. Whether this expenditure per discovered case is high or low, however, cannot be determined in the absence of figures for comparable programs.

If the cost per discovered case were the only criterion of the value of the cancer detection center, the expense involved might be considered excessive or even prohibitive. It is important to note, however, that there are other tangible benefits, including the discovery of additional carcinomas in persons referred to their family physician for further study and the discovery of other conditions of sufficient importance to justify referral for advice and treatment.

In considering the cost of case finding, the essential question is whether the funds could be spent to better advantage in some other phase of a program designed to gain control of cancer. When more effective technics for public education have been evolved and more satisfactory screening tests for cancer have been developed, it is entirely possible that it may be decided that detection centers are too expensive to operate, particularly if their only objective is to discover cancer. In the meantime, in the absence of a less expensive and more efficient procedure, we believe that we should continue to utilize for case finding the general physical examination in cancer detection centers and in the offices of private physicians.

EXFOLIATIVE DERMATITIS AND HEPATITIS DUE TO PHENOBARBITAL

DAVID G. WELTON, M.D.
Charlotte, N. C.

Phenobarbital, which was introduced clinically in 1911, is still one of the most frequently prescribed drugs in the United States. The fact that it can provoke an extremely severe and grave reaction may be easily overlooked by the busy practitioner, who is more aware of its great clinical utility. That it does so on relatively rare occasions (considering the vast amounts of it which are used) is most fortunate. Nevertheless, the literature contains numerous reports of a wide variety of eruptions attributed to phenobarbital; these include the generalized morbilliform or scarlatiniform rash, the bullous erythema multiforme, the discrete coin-sized violaceous macules of the "fixed eruption" type, urticaria and the generalized or universal exfoliative dermatitis, which may be fatal. It is clear, then, that every physician who prescribes this drug (or any other barbiturate) should be familiar with and constantly on the watch for the early warning signs of intolerance. Although a cutaneous eruption is often the first such sign, visceral involvement does occur and should always be considered. The following case illustrates a profound cutaneous and visceral reaction which progressed to an almost fatal climax; this might have been avoided had the significance of the skin eruption been recognized earlier.

REPORT OF CASE

Mrs. B. F. M., a white housewife aged 25, three months pregnant, was admitted to the hospital for emergency treatment on the evening of Aug. 14, 1949. Her chief complaint pertained to a generalized skin eruption, which had started as a moderately red rash on her face about August 1. During the next few days it had spread rapidly over the scalp, chest and back, and it soon covered her body and extremities. Swelling of the face, eyelids, arms and ankles developed next. Severe itching, universal erythema and exfoliation followed. Calamine lotion and other locally applied preparations had given no relief; for several days prior to her admission her temperature had risen to between 103 and 104 F., and she was manifestly extremely ill.

Additional information obtained from her family physician revealed that she had been given ½ grain (0.03 Gm.) of phenobarbital before each meal (three times daily) from June 21 until August 6 (for nausea and vomiting of early pregnancy). One week after the onset of the rash this dosage was discontinued, but she was subsequently given 1½ grains (0.09 Gm.) of pentobarbital sodium to be taken at bedtime, and she had taken at least six such doses. A week after the rash appeared, she was also given twelve 100,000 unit tablets of an oral penicillin preparation and 50 mg. of tripelennamine hydrochloride three times daily. No other drug had been taken so far as could be learned. The only additional symptoms were shortness of breath and blood-tinged diarrhea on one occasion.

On admission the patient appeared to be extremely ill; her temperature was 102.6 F. She presented a universal erythroderma, the skin being a dusky, purplish red, exfoliating generally in small flakes and oozing a serous exudate from the face, neck, arms and ankles, where the edema was most pro-

Dr. Parks M. King, who saw this patient soon after her admission to the hospital, gave permission to report this case.

nounced. Deep injection of the buccal and pharyngeal mucosa was noted. Additional pertinent observations were: copious purulent exudate from the conjunctivas, moist rales in both lower lung fields, pitting edema of the ankles and feet, palpable spleen 2 fingerbreadths below the left costal margin, palpable and tender liver edge and generalized lymphadenopathy. The lower part of the abdomen was rounded, with the pregnant uterus extending about half way to the umbilicus.

Examination of the peripheral blood on the day after admission showed 73,500 leukocytes per cubic millimeter; of these, 32 per cent were eosinophils, 26 per cent neutrophils, 40 per cent lymphocytes and 2 per cent monocytes; 2 nucleated red blood cells were noted. There were 4,330,000 erythrocytes, and the hemoglobin was 85 per cent. The urine was normal; the specific gravity was 1.027. The Kline serologic test was negative. The clinical impression at this point was that the patient had an unusually severe sensitization phenomenon due to phenobarbital (and aggravated by pentobarbital sodium) or a blood dyscrasia of the leukemia-lymphoblastoma group.

Initial treatment included: (1) diphenhydramine hydrochloride, 20 mg. intramuscularly every eight hours and 50 mg. orally every four hours; (2) sodium thiosulfate: 0.5 Gm. enteric-coated tablet three times daily by mouth (several days later it was possible to give 1.0 Gm. intravenously daily); (3) vitamin B complex with ascorbic acid (vitamin C), intramuscularly at first, intravenously later; (4) dextrose, 1,000 cc. of a 5 per cent solution intravenously daily, starting on the third day; (5) meperidine hydrochloride, 50 mg. at bedtime; (6) acetylsalicylic acid, 10 grains (0.65 Gm.) three times daily during febrile period, and (7) a high carbohydrate, high protein, low fat diet. All barbiturates and penicillin were avoided.

Medicaments applied to the skin included 1:15 aluminum acetate (Burow's) solution as wet dressings to the exudative areas, colloidal (starch and sodium bicarbonate) wet packs, several bland (softening) creams and an emollient skin oil.[1]

The patient sustained a severe chill and temperature up to 104.2 F. on each of the first three days in the hospital; for the next two weeks her temperature ranged from 98 to 100 F. but thereafter remained normal. The condition of her skin improved remarkably during the first five days, and her total leukocyte count fell rapidly (see the accompanying table). On the sixth hospital day a slight icteric tint of the scleras was first noted. An icterus index determination made the following morning was 37; within three days a peak of 90 was reached (table), and the skin was deeply jaundiced. The liver edge descended to 3 fingerbreadths below the right costal margin and became more tender; bile was present in the urine. The possibilities of acute necrosis of the liver and of infectious hepatitis were considered. Dr. Monroe Gilmour and Dr. H. H. Hodges, consultants, recommended the following additional therapy, which was instituted on August 21: (1) choline, 7.5 grains (0.5 Gm.) three times daily; (2) methionine, 10 grains (0.6 Gm.) three times daily; (3) brewers' yeast powder, ½ ounce (15 Gm.) three times daily, and (4) 10 per cent dextrose solution intravenously, 1,000 cc. daily.

Serum protein determination on August 21 showed 5.1 Gm. per hundred cubic centimeters of total protein, of which 1.9 Gm. was albumin and 3.2 Gm. globulin, a ratio of 1:1.6. To make up for this critical albumin deficiency, the patient was given 100 cc. of normal serum albumin (human) concentrate, salt poor, (1 unit of the American Red Cross Blood Center preparation) intravenously daily for seven days, on the suggestion of Dr. Walter Summerville, pathologist for the hospital. A satisfactory response to this was obtained: on August 29 the total protein was 7.7 Gm. per hundred cubic centimeters, with 2.7 Gm. albumin and 5.0 Gm. globulin, a ratio of 1:1.8. Additional laboratory data included a prothrombin time of 44 seconds (Quick method) and a heterophil antibody titer positive in 1:32 dilution; examination of the stools showed no ova, amebas or cysts, and the stool culture for organisms of the typhoid group was negative. On August 20, 2 nucleated erythrocytes, an occasional myelocyte and an occasional large unidentified cell were noted in the blood smear. No abnormal cells were found on any subsequent examination.

1. The skin oil contained an emulsion of neutral aliphatic hydrocarbons in water, with wool fat cholesterols.

While the jaundice was at its height the patient was somewhat drowsy and apathetic but never comatose. General clinical improvement began as soon as the icterus index level began to fall (table). The only other complication was an abscess of the right arm (presumably at the site of a hypodermic injection). With the help of roentgen therapy this was localized, and, when fluctuant, a large amount of pus was obtained by surgical drainage on Sept. 2, 1949. Satisfactory involution and healing of the arm ensued. By this time the patient was ambulatory, and her skin condition was much improved. Although exfoliation had ceased and the edema had subsided, there was still some pruritus of the neck, arms and legs; these areas were treated with superficial roentgen therapy on several occasions.

By September 12, the patient's icterus index had descended to 20 and she was allowed to leave the hospital. Final check-up examination at the office on September 19 showed that the skin was entirely clear; the icterus index was 6.5; total leukocytes 10,650 per cubic millimeter, and the hemoglobin measured 70 per cent (Sahli). On September 23 she was examined by her family physician, who found that her pregnancy was progressing satisfactorily; his laboratory reported a total leukocyte count of 15,200 per cubic millimeter, with 13 per cent eosinophils, 3,650,000 red blood cells and Rh-positive blood. He was advised specifically to avoid the use of all barbiturates in her case.

Peripheral Blood Counts and Icterus Index

Date	W. B. C.	Differential *					Icterus Index
		N	E	B	L	M	
8/15	73,500	26	32	..	40	2	..
8/16	68,800	47	35	1	15	2	..
8/17	54,000	20	24	1	54	1	..
8/18	40,500	37	10	..	46	7	..
8/20	45,500	41	9	1	45	2	37
8/21	37,000	60	14	..	26	..	68
8/22	23,100	42	19	..	39	..	80
8/23	18,000	48	20	..	32	..	90
8/24	14,000	45	22	..	33	..	85
8/25	15,700	69	3	..	28	..	69
8/26	13,000	50	15	..	32	..	39
8/27	13,000	53	13	1	33	..	..
8/28	14,700	63	9	..	26	2	29
8/29	15,700	62	6	..	29	2	29
8/31	15,300	71	2	1	26	..	..
9/ 7	13,500	72	4	..	25	1	28
9/ 6	11,400	..	..	..	..	..	14
9/12	10,400	50	34	..	10	6	20

* The letters indicate: N, neutrophils; E, eosinophils; B, basophils; L, lymphocytes and M, monocytes.

COMMENT

The occurrence of a universal exfoliative dermatitis in a young pregnant woman, coupled with a leukocytosis and eosinophilia of serious magnitude and jaundice of severe degree provided a clinical picture which focused attention on the visceral (as well as the cutaneous) manifestations of what is believed to have been a phenobarbital reaction.

Although generalized exfoliative dermatitis can be caused by diseases such as psoriasis, the lymphoblastomas and pityriasis rubra (Hebra), it is more commonly caused by the administration of drugs containing arsenic or gold and by the barbiturates and the sulfonamide compounds. (A few cases have been ascribed to penicillin.) Since phenobarbital was the only drug taken by the patient prior to the onset of the eruption which was potentially capable of producing this condition, it was first in etiologic consideration. The pronounced leukocytosis and eosinophilia made it necessary also to consider leukemia or one of the related lymphoblastomas, but these were soon ruled out by the rapid daily improvement in the peripheral blood.

The incrimination of phenobarbital, then, as the causative agent was arrived at chiefly by elimination (as has been the case in virtually all the reports in the literature). Skin tests are known to be inconclusive; it was believed that it would be unsafe in this instance to give the patient a "test dose" (after the skin had cleared). If one doubts that such a severe reaction can be produced by taking ½ grain (30 mg.) of phenobarbital three times daily for six weeks, one is referred to Brunsting's report of death in a patient who had taken ¼ grain (15 mg.) three times daily for only ten days.[2] In one of the fatal cases reported by Sweitzer and Laymon,[3] the patient noticed a generalized eruption after taking pentobarbital sodium for four days; she died as a result of anuria and pulmonary edema. The sudden onset of a rapidly progressive jaundice and the critical depletion of serum albumin are not usually considered common complications of phenobarbital sensitization. (They are not uncommon, of course, in arsenical reactions.) In 1936, however, Birch reported a case of jaundice due to phenobarbital,[4] and the literature contains a number of reports of exfoliative dermatitis due to phenobarbital in which visceral lesions such as fatty degeneration of the liver, acute inflammatory changes around the portal canals, cloudy swelling of the kidneys and squamous cell metaplasia of the pancreas were noted.[5] The internists who saw this patient in consultation concluded that the condition of the liver was part of a general hyperergic reaction and not infectious or toxic in origin. Bronchopneumonia is the commonest terminal complication; hemorrhagic encephalitis has been reported. Exfoliation of the esophageal, laryngeal, tracheal, bronchial, renal pelvic and ureteral mucosa has been described by Sexton, Pike and Nielson[6] and by Poole,[7] and I have observed this in 1 patient (not reported).

It is known that hyperemesis gravidarum can cause many of the symptoms which this patient had (with the exception of exfoliative dermatitis). However, vomiting had almost ceased before this patient's eruption began, and it occurred on few occasions during her hospitalization.

The combination of eosinophilia and jaundice brings to mind the possibility of periarteritis nodosa. Rich and Gregory[8] produced this disease experimentally (in rabbits) by establishing a condition analogous to serum sickness, and they have reported its development as a result of hypersensitive reaction following foreign serum and sulfonamide therapy. In a survey of 200 cases, Ketron and Bernstein[9] found cutaneous involvement in 25 per cent. Purpuric lesions and nodules in the skin or subcutaneous tissue were the usual manifestations; exfoliative dermatitis was not noted. Although biopsy was not done on the patient reported herein, she did not exhibit the diagnostic tetrad of Meyer and Brinkman (chlorotic marasmus, polyneuritis and polymyositis, vague gastrointestinal disturbances and nephritis).[10]

An intriguing clinical coincidence was provided when it was realized that the jaundice began to subside the day after diphenhydramine hydrochloride therapy had been discontinued. (The possibility that diphenhydramine might have some adverse effect on the liver had been considered, but the drug was discontinued chiefly because the patient's skin condition and leukocytosis had improved, and it was deemed advisable to decrease in some measure the large amount of medicine being administered.)

SUMMARY AND CONCLUSION

1. An almost fatal sensitization reaction to phenobarbital, which was manifest by universal exfoliative dermatitis, decided leukocytosis, severe jaundice and depletion of serum albumin with reversal of the albumin/globulin ratio, is reported.

2. Death in patients with exfoliative dermatitis caused by phenobarbital is probably due to (1) failure to discontinue the drug as soon as any eruption begins and (2) failure to recognize early and to treat adequately the associated visceral involvement.

3. Whenever phenobarbital (or any other barbiturate) is prescribed, the patient should be instructed to discontinue the drug as soon as any skin eruption appears and to report to the physician. Likewise, in the presence of any new cutaneous eruption, the physician should withdraw the drug until he has made sure that the rash is not due to phenobarbital.

403 North Tryon Street.

2. Brunsting, L. A.: Dermatitis Medicamentosa; Idiosyncrasy to Quinine, Phenolphthalein and Phenobarbital, Proc. Staff Meet., Mayo Clin. 7:618, 1932.

3. Sweitzer, S. E., and Laymon, C. W.: Severe Cutaneous Reactions to the Barbiturates, Minnesota Med. 20:92, 1937.

4. Birch, C. A.: Jaundice Due to Phenobarbital, Lancet 1:478, 1936.

5. Wile, U. J., and Benson, J. A.: Exfoliative Dermatitis Due to Phenobarbital with Fatal Outcome: Report of Two Cases, Ann. Int. Med. 13:1243 (Jan.) 1940. Winer, N. J., and Baer, R. L.: Exfoliative Dermatitis Due to Phenobarbital: A Clinical and Postmortem Study of a Case, with a Review of the Literature on Visceral Lesions in Cases of Drug Eruptions, Arch. Dermat. & Syph. 43:473 (March) 1941. Moss, R. E., and Long, W. E.: Toxic Eruptions Due to Phenobarbital: Report of Two Cases, ibid. 40:386 (Sept.) 1942.

6. Sexton, D. L.; Pike, G. E., and Nielson, A.: Exfoliative Dermatitis and Death Due to Phenobarbital, J. A. M. A. 116:700 (Feb. 22) 1941.

7. Poole, A. K.: Drug Reactions from Barbital and Phenobarbital, Yale J. Biol. & Med. 1:345, 1929.

8. Rich, A. R., and Gregory, J. E.: The Experimental Demonstration That Periarteritis Nodosa is a Manifestation of Hypersensitivity, Bull. Johns Hopkins Hosp. 72:65, 1943.

9. Ketron, L. W., and Bernstein, J. C.: Cutaneous Manifestations of Periarteritis Nodosa, Arch. Derm. & Syph. 40:929 (Dec.) 1939.

10. Middleton, W. S.: Infectious Arteritis, Ann. Int. Med. 29:1093, 1948.

1. Hiller, R. L., and Fox, M. J.: Infectious Neuronitis Associated with Infectious Mononucleosis, Marquette M. Rev. 7:132-134 (Feb.) 1943.

2. Ricker, W.; Blumberg, A.; Peters, C. H., and Widerman, A.: Association of Guillain-Barré Syndrome with Infectious Mononucleosis, Blood 2:217-226 (May) 1947.

Clinical Notes, Suggestions and New Instruments

INFECTIOUS MONONUCLEOSIS AND POLYNEURITIS (GUILLAIN-BARRÉ SYNDROME)

Report of a Case of Facial Diplegia Treated with 2,3 Dimercaptopropanol (BAL)

NICHOLAS E. CREATURO, M.D.
Bridgeport, Conn.

Involvement of the central nervous system and peripheral neuropathy have been reported in association with many diseases, especially during the postinfectious stage of contagious diseases of bacterial and viral origin. They have also been reported in connection with heavy metal intoxication and with vitamin B deficiency. Polyneuritis of the Guillain-Barré type with facial diplegia, extensive peripheral neuropathy and albuminocytologic dissociation of the cerebrospinal fluid associated with infectious mononucleosis is unusual enough to attract attention. I have made no attempt to review the entire literature on infectious mononucleosis. The articles which have been read leave one with the impression that the Guillain-Barré syndrome associated with infectious mononucleosis either does not occur often or is not reported.

In 1943 Hiller and Fox[1] reported a case of infectious neuronitis associated with mononucleosis. Ricker, Blumberg, Peters and Widerman[2] reviewed the literature in 1947. They

were able to find 1 case of the Guillain-Barré syndrome associated with infectious mononucleosis, and they reported 2 additional cases with fatal termination. In 1948 Custer and Smith [3] described the pathologic changes produced by infectious mononucleosis. Their report showed the extensive involvement of the various organs and tissues which follows the disease. Dolgopol and Husson [4] in 1949 reported a fatal case of infectious mononucleosis with neurologic complications. The latest report to come to my attention is that of Graham, Schwartz and Chapman.[5] These authors described a case of infectious neuronitis complicating infectious mononucleosis which showed many features similar to those of the case reported here.

Because of the apparent rarity of this condition and because of rapid improvement after the use of 2,3 dimercaptopropanol, (BAL), the following case is being reported.

REPORT OF A CASE

B. B., a 17 year old high school girl, was first seen by me on Jan. 13, 1949, after she had been admitted to the Bridgeport Hospital. She had been referred by an otolaryngologist, who made the diagnosis of infectious mononucleosis on the basis of sore throat, swollen glands and a blood smear which showed many atypical lymphocytes. The patient had been ill at home since January 4, with a griplike syndrome. One week before her admission a sore throat developed, and she had been treated by her family physician with penicillin and sulfonamide drugs, without improvement. The day before admission the sore throat became severe and hospitalization was advised.

Physical Examination.—Examination showed a well developed, fairly well nourished girl of 17 years. She did not appear too ill and, except for the sore throat, was in no apparent distress. The temperature was 101 F., pulse rate 100 and respiratory rate 20. The pharynx was injected. The soft palate showed numerous petechiae. The tonsils were large and infected and covered with a thick, dirty gray membrane. The anterior and posterior cervical lymph nodes were enlarged and tender. The heart and lungs were normal. The liver and spleen could not be felt, and reflexes were normal.

Laboratory examination gave the following results: A throat culture was negative for diphtheria and showed Aerobacter aerogenes. The urine was normal except for a trace of albumin. On January 13 the hemoglobin content was 10.25 Gm., the red blood cell count 3,500,000, the white blood cell count 16,750 and the polymorphonuclear cell value 12 per cent. There were 68 per cent lymphocytes, with 20 per cent atypical lymphocytes. On January 14 the white blood cell count was 18,300, with 8 per cent polymorphonuclear cells, 18 per cent lymphocytes, 64 per cent atypical lymphocytes, 9 per cent mononuclear cells and 1 per cent basophils. On January 17 the hemoglobin was 11.65 Gm., the red blood cells 4,530,000 and the white blood cells 12,600, with 18 per cent polymorphonuclear cells, 12 per cent lymphocytes, 64 per cent atypical lymphocytes, 5 per cent mononuclear cells and 1 per cent basophils. On January 21 the white blood cells numbered 7,500, with 32 per cent polymorphonuclear cells, 28 per cent lymphocytes, 27 per cent atypical lymphocytes, 12 per cent mononuclear cells and 1 per cent eosinophils. On January 19 the heterophil antibody reaction was positive in dilution up to 1:1,024.

Course in the Hospital.—The patient was treated with rest in bed, glucose irrigation of the throat and codeine and cortalex® (adrenal cortex steroids and vitamin C). Three days after her admission the temperature became normal, and it remained so. By January 19 the throat had improved, the membrane was gone, the glands were less tender and the patient was allowed to be up and about. On January 21 she was feeling well, the throat was entirely clear and appetite and strength were returning rapidly. She complained of slight pain in the left calf muscles, but nothing unusual was noted and she was allowed to go home.

Subsequent Progress.—The day after her discharge, the mother reported that the patient was having difficulty in using her legs and in standing. She was examined at home, where she gave the following history: When she was discharged from the hospital, she had some pain in the left calf and had trouble getting into an automobile. She attributed this to weakness from her illness, but when she got home she had to be helped up the stairs and she noted difficulty in standing. The following day she noticed increasing weakness of her legs and difficulty in walking and standing. The left leg was weaker than the right. When lying down, she was able to raise the right leg but not the left one, and she also had difficulty sitting up.

Examination showed a temperature of 98.6 F., and a pulse rate of 72. The heart and lungs were normal. The left calf muscles were tender to pressure. The patient was able to flex and extend the leg at the knee but unable to raise it off the bed. She could raise the right leg but could not sit up without assistance. When helped to her feet, she was able to stand with support, and she could walk but tired easily. There was no weakness of the abdominal or thoracic muscles or of the arms. There were slight stiffness and tenderness of the neck. The abdominal reflexes and knee jerks were absent. There was slight decrease of sensation to pin prick of both legs, which were drenched with perspiration. A tentative diagnosis of peripheral neuritis was made. The patient was ordered back to bed and administration of vitamin B started.

The following day she was again seen at home. There was an increase in the paralysis of the legs. There was in addition partial paralysis of both arms, facial diplegia and paralysis of the right side of the palate, with a distinct nasal twang to the voice. The patient complained of a headache and had stiffness of the neck. Because of the rapid progression of an ascending type of paralysis and of the possibility that poliomyelitis was present, she was examined by a neurologist, who agreed with the diagnosis of polyneuritis.

Physical Examination After Readmission.—The possibility of respiratory paralysis was discussed, and the patient was readmitted to the Bridgeport Hospital, where a respirator was available. On January 23 examination showed the patient to be acutely ill. The temperature was 98.6 F., the pulse rate 114, the respiratory rate 24 and the blood pressure 136 systolic and 100 diastolic. She was unable to stand or walk, and she spoke with a distinct nasal twang. She complained of pains in both legs and tingling sensations in her hands and feet. Both hands and feet were damp with perspiration. She was unable to move the upper lip because of stiffness, but she could open her mouth when urged to do so. The face was expressionless, and she could not smile or curl up the angles of the mouth, whistle or wrinkle her forehead. There was interference with speech because of the facial and palatal paralysis. She was unable to close her eyes completely; the ocular movements and pupils were normal. The neck showed slight rigidity, and a few nontender, pea-sized glands were present. The heart and lungs were normal, and the chest and abdomen showed no evidence of paralysis. The liver and spleen could not be felt. No weakness of the diaphragm was apparent. There was some stiffness of the back, and the patient was unable to sit up without assistance. She could move her arms and legs but was unable to raise her legs off the bed. There was diminished sensation to pinprick below the knees. All the deep reflexes and abdominal reflexes were absent.

Lumbar puncture showed a clear fluid, the pressure being 80 mm. of water. Pandy's test gave a strongly positive reaction. The total protein was 168 mg. per hundred cubic centimeters, sugar 66 mg., and chlorides 732 mg. There were no cells. Smear and culture gave negative results. The colloidal gold type 2 curve was 34454. A serologic test gave negative results.

On January 25 the heterophil agglutination titer was positive in dilution up to 1:1,280 both before and after adsorption with guinea pig kidney (done at Connecticut State Department of Health Laboratories), and on January 26 it was positive in dilution up to 1:512 (done at Bridgeport Hospital). On January 24 the hemoglobin was 12 Gm. the red blood cells 4,140,000 and the white blood cells 7,750, with 28 per cent poly-

3. Custer, R. P., and Smith, E. B.: Pathology of Infectious Mononucleosis, Blood 3:830-857 (Aug.) 1948.

4. Dolgopol, V. B., and Husson, G. S.: Infectious Mononucleosis with Neurologic Complication: Report of a Fatal Case, Arch. Int. Med. 83:179-196 (Feb.) 1949.

5. Graham, S. D.; Schwartz, W. H., and Chapman, W. L.: Infectious Neuronitis Complication Infectious Mononucleosis, U. S. Naval M. Bull. 49:914-919 (Sept.-Oct.) 1949.

morphonuclear cells, 22 per cent lymphocytes, 31 per cent atypical lymphocytes, 13 per cent monocytes, 5 per cent eosinophils and 1 per cent basophils.

On February 1 the hemoglobin was 13.19 Gm., the red blood cells 5,140,000 and the white blood cells 10,500, with 50 per cent polymorphonuclear cells, 6 per cent eosinophils, 5 per cent monocytes, 1 per cent basophils, 18 per cent lymphocytes, and 20 per cent atypical lymphocytes.

On February 17 the hemoglobin was 11.65 Gm., the red blood cells 4,490,000 and the white blood cells 6,350, with 49 per cent polymorphonuclear cells, 31 per cent lymphocytes, 7 per cent atypical lymphocytes, 4 per cent monocytes, 8 per cent eosinophils and 1 per cent basophils.

Course in Hospital.—The patient was treated with vitamin B and was encouraged to move as much as possible. A frame was set up over the bed with bars and slings so that she could help to raise herself and exercise her legs. Penicillin was used for the first week as a precaution against secondary infection. She got up daily to sit in a chair. On January 27 administration of cortalex® was started by mouth. Three days after admission, there seemed to be a slight increase in the strength of the legs and arms but no change in the facial muscles. For the first time the spleen could be felt, 2 fingerbreadths below the costal margin. There also developed a tachycardia (100 to 140), which persisted for three days.

On January 30 there was a slight return of motion in facial muscles and strength was returning rapidly in both arms, but there was no further improvement in the legs. These were weaker, and deep reflexes were absent.

By February 2 the face was much improved; facial expression and motion of facial muscle were almost back to normal. The arms had almost completely recovered, but the back was still stiff. The patient was unable to raise her legs off the bed, but she could flex the lower part of the leg onto the thigh and then extend it. She was unable to stand on her legs while in a walker. Deep reflexes were absent. Speech had returned to normal, and she was able to swallow without difficulty.

By February 6, in spite of early active and passive movements, the legs had not improved, and the hamstring muscles were becoming tight. At this time my attention was called to a report by Furmanski[6] on the therapy of peripheral neuropathies with 2,3 dimercaptopropanol. Because the patient was not improving, it was decided to try this preparation in the dosage, recommended by Furmanski,[6] of 1.5 mg. per kilogram. The patient's weight was approximately 55 Kg., and on February 27 she was given 75 mg. of 2,3 dimercaptopropanol intramuscularly and again on February 8. From February 10 through February 18 she was given 90 mg. daily intramuscularly.

On February 11 the patient was able to raise her legs slightly off the bed. On February 14 anesthesia was induced by intravenous injection of thiopental sodium and the hamstring and back muscles were stretched. On February 16 she was able to raise her legs high off the bed and to stand in the walker and take a few steps with assistance. By February 20 remarkable improvement was evident. She was able to raise both legs high off the bed against gravity and to sit up from the supine position with slight assistance. She could walk for the first time without the walker by supporting herself on the arm of a nurse. Administration of 2,3 dimercaptopropanol was discontinued on February 19. A total of 1.125 Gm. had been given. By February 24 the patient was able to walk with crutches or by supporting herself on a nurse. The upper extremities appeared normal; sensation was normal, but reflexes were still absent.

On February 27 anesthesia with thiopental sodium was again used, and hamstring and back muscles were stretched.

The patient was discharged from the hospital on February 27. She was able to get around with the assistance of a cane. Her gait was somewhat unsteady but stronger, and she was able to stand erect. The paralysis of the face and arms was gone. There was still weakness of the leg muscles, and all deep reflexes were absent.

After her discharge from the hospital, the patient was able to be up and about her home, and by March 7 she was again able to go up and down stairs and to walk unassisted. On March 18 slight weakness of the leg muscles and stiffness of the hamstring muscles were still present and all deep reflexes were absent. On March 21 she returned to school. On April 29 she was well, and the hamstring muscles were normal. Abdominal reflexes had returned, but the triceps, knee and ankle jerk were still absent. No paralysis was present, and the patient was able to attend school full time and in addition work part time as a salesgirl.

6. Furmanski, A. R.: BAL therapy of Severe Peripheral Neuropathies, Arch. Neurol. & Psychiat. 60: 270-278 (Sept.) 1948.

COMMENT

The case presented has all the features of infectious mononucleosis. The clinical picture, the blood picture and the strongly positive heterophil agglutination reaction are typical of this disease. The neurologic manifestations are those of polyneuritis and the so-called Guillain-Barré syndrome, as evidenced by the multiple involvement of peripheral nerves and an ascending type of paralysis, with spinal fluid which contained a high protein content and no cells.

With the usual supportive measures, vitamins, active and passive exercises and physical therapy, the patient improved up to a certain point and then her progress ceased. The condition of her legs was not improving until administration of 2,3 dimercaptopropanol was started, and from that time on improvement was rapid. Whether or not this improvement was due to coincidence is hard to say, but it is my impression that it was more rapid than could have been anticipated from the natural course of the disease.

The theory proposed by Furmanski[6] that initially neuropathies are reversible biochemical disorders of the neuron, that no structural changes of degeneration occur and that 2,3 dimercaptopropanol has the ability to restore disrupted cellular metabolism by its action on enzyme system is an interesting one and should be subjected to further investigation. The case reported may help to support his contention, since improvement started shortly after administration of this compound was started.

SUMMARY

A case of infectious mononucleosis associated with the Guillain-Barré syndrome is reported. Rapid improvement followed the addition of 2,3 dimercaptopropanol (BAL) to the usual treatment.

1286 East Main Street.

Council on Foods and Nutrition

This paper was prepared at the request of the Council and is one of a series appearing in THE JOURNAL. *In the near future the entire series will appear in book form as the Council's Handbook of Nutrition.* JAMES R. WILSON, M.D., *Secretary.*

FAT-SOLUBLE VITAMINS A, E AND K

HUGH E. BUTT, M.D.
Rochester, Minn.

VITAMIN A

Chemistry.—Vitamin A is a colorless, fat-soluble vitamin. Karrer and associates isolated it in 1931 and determined its structure, but effective syntheses of vitamin A were achieved by Milas[1] and others only during the last five years.

The vitamin is an alcohol and hence is not itself saponifiable. Evidence has been presented indicating that vitamin A occurs in more than one form. The form that predominates in the tissues of salt water fish and mammals has been designated as vitamin A_1 and the form which predominates in the tissues of fresh water fishes as vitamin A_2. Both forms appear to exert similar functions, although vitamin A_1 is considerably more effective in mammals than vitamin A_2.

From the Division of Medicine, Mayo Clinic, Rochester.

1. Milas, N. A.: Synthesis of Biologically Active Vitamin A Substances, Science 103: 581 (May 10) 1946.

The international unit of vitamin A has been fixed as the activity of 0.6 micrograms of pure beta-carotene. This, dissolved in a vegetable oil at such concentration that 1 Gm. contains 0.3 mg. of beta-carotene, constitutes the international standard preparation of vitamin A. One international unit of vitamin A is contained, therefore, in every 2 mg. of the international standard preparation.

Vitamin A is fairly stable to heat, is not appreciably soluble in water and is destroyed by oxidation. The structural formula of vitamin A is shown in figure 1.

During early experimental work on the promotion of growth it soon became evident that some relationship existed between the fat-soluble vitamin A and the presence of plant pigments, but it was not until 1930 that it was generally realized that carotene possessed growth-promoting activity. It is known now that much of the vitamin A man receives from his food occurs in the form of its precursors, the yellow and red carotenoid pigments (provitamins).

These provitamins, called "carotenoids," are extremely sensitive to oxidation and light but are quite stable to heat. Little is known of their biogenesis, and none have been synthesized. The beta form is apparently the most active precursor, and its activity seems to depend on the presence of the beta-ionone ring.

Although its exact function is unknown, carotene is important in the physiologic processes of plants. It is

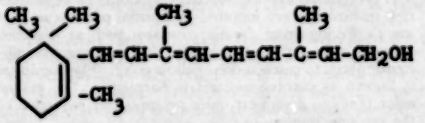


Fig. 1.—The structural formula of vitamin A.

associated closely with chlorophyll, although it is not lost when chlorophyll disappears at the time of the yellowing of the leaves. However, it has been destroyed completely by the time the leaves are dry and dead.

Sources.—Vitamin A is present only in the animal organism. Fish liver oils are the richest source, but milk, butter, margarine fortified with vitamin A and egg yolks are also rich sources. Human milk is a good source of vitamin A and carotene. The colostrum from the human breast has from two to three times as much biologic vitamin A activity as milk secreted soon after parturition, and this human milk has from five to ten times the biologic vitamin A activity of cow's milk. One can increase the content by giving supplementary vitamin A to the mother,[2] but from data at hand it seems that the best method of vitamin A therapy, when the object is to give the child a reserve of the vitamin, is to give it directly.

Because of its chemical properties, foods which are heated for long periods of time lose an appreciable amount of vitamin A. Boiling, canning or freezing foods does not cause loss of the vitamin, but drying and dehydration cause considerable loss.

Among the best sources of provitamin A are thin, green leaves. The exact relationship between the degree of greenness and the content of the provitamin is not understood, but it is well known that the outer green leaves of iceberg lettuce or cabbage are much more potent in provitamin A than are the inner leaves. Peas, green beans, green peppers, asparagus and green celery are examples of vegetables known to have a high content of carotene. Yellow fruits and vegetables such as carrots, sweet potatoes, apricots, yellow peaches and yellow tomatoes are other examples of rich sources of carotene. Nuts and cereal grains, with the exception of those having considerable green or yellow color, are poor sources. Yellow corn is the most important source of carotene in this group.

Requirements.—The minimal requirement for vitamin A in man is still unknown, but in many animals the amount needed has been found to be related to body weight.[3] In practice the vitamin A needs of the human body are usually taken care of by the mixture of vitamin A and provitamin A present in the diet. It is difficult to calculate the precise vitamin A value of individual precursors for the simple reason that the precursors do not always yield their theoretic vitamin A values. Dr. Lela Booher and her co-workers[4] in a study of beta-carotene and vitamin A requirements, observed that it took, on an average, 73 per cent more of beta-carotene (in oil) than vitamin A as it occurred in cod liver oil to maintain normal dark adaptation after vitamin A depletion. It is apparent from these and other reports that the human being utilizes vitamin A from various sources with differing degrees of efficiency. Until more is known about the factors surrounding the utilization of provitamin A the precise method of calculating the vitamin A values of ordinary diets will not be known. However, it is probably safe to assume that such vegetables as carrots, which are rich in carotene, can be relied on as important sources of vitamin A, even though it may take as much as 4 parts of carotene to supply 1 part of vitamin A. As was pointed out in the 1948 revision of the Food and Nutrition Board's "Table of Recommended Dietary Allowances,"[5] it is currently considered that the requirement for vitamin A is from 25 to 55 international units per kilogram of body weight, or 2,000 to 4,000 units of vitamin A per day for the adult, and "twice these amounts or more if the sole source is carotene from foods." The Food and Nutrition Board's recommended daily dietary allowance of vitamin A is given in the accompanying table.

Absorption.—Vitamin A: Since vitamin A is a fat-soluble compound, its absorption may be facilitated by the simultaneous absorption of a certain amount of fat, but there is not universal agreement on this point.[6] Most workers feel that the presence of bile is not necessary for proper absorption of the vitamin. Absorption of vitamin A reaches its maximum three to five hours after administration.

Although apparently some vitamin A is lost in feces, nothing is known of the degree of destruction of the vitamin in the gastrointestinal tract under either normal or pathologic conditions. In a case of fistula of the thoracic duct, studies made after administration of vitamin A or carotene by mouth revealed that little carotene

2. Hrubetz, M. C.; Deuel, H. J., Jr., and Hanley, B. J.: Studies on Carotenoid Metabolism: V. The Effect of a High Vitamin A Intake on the Composition of Human Milk, J. Nutrition **20**: 243 (April) 1945. Clements, F. W.: Manifestations of Nutritional Deficiency in Infants, in Harris, R. S., and Thimann, K. V.: Vitamins and Hormones: Advances in Research and Application, New York, Academic Press, Inc., 1946, vol. 4, pp. 71-133.

3. Guilbert, H. R.; Howell, C. E., and Hart, G. M.: Minimum Vitamin A and Carotene Requirements of Mammalian Species, J. Nutrition **19**: 91 (Jan.) 1940.

4. Booher, L. E.; Callison, E. C., and Hewston, E. M.: Experimental Determination of Minimum Vitamin A Requirements of Normal Adults, J. Nutrition **17**: 317, 1939. Booher, L. E., and Callison, E. C.: Minimum Vitamin A Requirements of Normal Adults: Utilization of Carotene as Affected by Certain Dietary Factors and Variations in Light Exposure, J. Nutrition **18**: 459, 1939.

5. Recommended Dietary Allowances, Revised 1948, National Research Council, Food and Nutrition Board, no. 129, 1948.

6. Ingelfinger, F. J.; Moss, R. E., and Hehn, J. D., Jr.: The Effect of Atropine Upon the Absorption of Vitamin A, J. Clin. Investigation **22**: 699 (Sept.) 1943.

passed through the chylous fluid, whereas nearly all the vitamin A could be recovered from it.[7]

In patients with sprue treated with pteroylglutamic acid Fox [8] and Darby and co-workers [9] have shown that serum levels of vitamin A are increased, thus indicating that the function of the intestinal tract and perhaps its ability to absorb vitamin A are affected. It has been further demonstrated by Weick and Tsao [10] and Danielson and co-workers [11] that the serum level of vitamin A can be increased both in normal children and in children with cystic fibrosis of the pancreas by the administration of vitamin A to which emulsifiers have been added. This preparation seems to give the best results, but caution must be exercised until the safety of the emulsifying agent used has been demonstrated.

Carotene: Carotene is absorbed less rapidly than vitamin A, and its absorption is subject to several more hazards. Proper absorption of carotene requires the presence of bile in the intestinal tract, and, in those conditions in which bile is excluded completely or partially from the intestinal tract or in those instances in which bile salts of good quality are poorly excreted, bile must be given as a supplement in order to insure proper absorption. Chronic diarrhea, pancreatic dysfunction, celiac disease or sprue also may inhibit absorption of carotene. As with vitamin A, a certain amount of normal absorption of fat also seems necessary for proper transportation of carotene across the intestinal wall. It has been shown that liquid petrolatum may inhibit seriously the absorption of carotene.

Table of Recommended Daily Dietary Allowances of Vitamin A

	Vitamin A (I. U. per Day) *
Normal adults	5,000
Pregnancy (latter half)	6,000
Lactation	8,000
Children	
Under 1 year	1,500
1-3	2,000
4-6	2,500
7-9	3,500
10-12	4,500
13-15	5,000
Boys 16-20 years	6,000

* The allowances, as given here, are based on the premise that approximately two thirds of the vitamin A value of the average diet in this country is contributed by carotene and that carotene has half or less than half the value of vitamin A.

Maximal concentration of carotene in the blood is reached in seven to eight hours after administration, and the fecal excretion accounts for only a small portion of the unutilized excess. The rest apparently finds other channels of excretion or is destroyed in the intestine or elsewhere. Under normal conditions the kidney apparently plays no part in the disposition of either vitamin A or its precursors.

Storage.—The capacity to store vitamin A varies widely in different species of animals. The rat has a large capacity for the storage of vitamin A, whereas the rabbit and guinea pig retain little, even when ingesting diets rich in carotene. It has been shown that maximum storage of vitamin A in the livers of rats occurs when the vitamin is administered orally rather than parenterally, subcutaneously or intramuscularly.[12] Rodahl [13] reported recently that polar bears seem to be capable of storing huge amounts of vitamin A in their livers. He found 26,700 and 21,900 international units of vitamin A per gram, respectively, in two specimens of the wet material. In fish more vitamin A is deposited in the tunica propria of the mucosa of the intestine than in the liver.

In human beings the liver probably stores about 95 per cent of the vitamin A reserve of the body. As a rule, the amount stored in the liver is least at birth and during childhood, irrespective of the diet of the mother, and increases gradually with advancing age. Examinations of the livers of healthy persons who died suddenly from accidental causes have shown the average vitamin A content of the liver to be between 200 and 400 international units of vitamin A per gram. The amount of vitamin A stored in the liver in instances of hypervitaminosis A had not been reported up to the time of writing. The exact mechanism by which vitamin A is called forth from reserve storage is not known.

Hypervitaminosis A.—If large amounts of vegetables rich in carotene are ingested by normal persons or persons suffering from certain diseases, such as diabetes, carotene may accumulate in the skin in amounts sufficiently large to cause a deep yellow color. The condition is known as carotenosis and is harmless. The yellow color tends to disappear quite promptly on reduction of the carotene intake.

As yet, there is no evidence of toxic effect occurring in foods, although it is interesting to note that Eskimos consider the livers of the polar bear and the Greenland fox as poisonous. The livers are reported to contain about 25,000 and 12,000 international units, respectively, of vitamin A per gram.[14]

In 1944, Josephs [15] published a report of hypervitaminosis A in a 3 year old boy. Some two years later Toomey and Morissette [14] reported a case in a 23 month old infant. Since that time the condition has been observed and reported from other clinics.[16] The condition seems to be due to the regular ingestion of large doses of vitamin A concentrates over a long period. Recovery tends to follow the withdrawal of vitamin A supplements.

In summarizing the study of his case, Toomey reported the following conditions: hepatomegaly, without splenomegaly; increased levels of vitamin A in the serum; increased levels of serum lipids; abnormalities of bones; increased levels of serum phosphate; low levels of serum proteins; sparse, coarse hair; avid appetite for butter; abnormal intake of vitamin A; pain and localized periosteal swellings; recovery from

7. Forbes, G. B.: Chylothorax in Infancy: Observations on the Absorption of Vitamins A and D and on the Intravenous Replacement of Aspirated Chyle, J. Pediat. **25**: 191 (Sept.) 1944.
8. Fox, H. J.: Absorption of Unemulsified and Emulsified Vitamin A in Sprue, J. Lab. & Clin. Med. **34**: 1140 (Aug.) 1949.
9. Darby, W. J.; Kaser, M. M., and Jones, E.: Influence of Pteroylglutamic Acid (Member of Vitamin M Group) on Absorption and Storage in the Liver of the Rat, J. Nutrition **33**: 243 (Jan.) 1947.
10. Weick, G., and Tsao, M.: Comparison of Absorption in Normal Children and Children with Cystic Fibrosis of the Pancreas Using Oily and Water Soluble Preparations, Univ. Hosp. Bull., Ann Arbor **12**: 114 (Nov.) 1947.
11. Danielson, W. H.; Palmer, H. D., and Binkley, E. L.: Absorption of Different Forms of Vitamin A in Cystic Fibrosis of Pancreas, Rocky Mountain M. J. **44**: 626 (Aug.) 1947.
12. Lemley, J. M.; Brown, R. A.; Bird, O. D., and Emmet, A. D.: Absorption and Storage of Vitamin A in the Liver of the Rat, J. Nutrition **33**: 53 (Jan.) 1947.
13. Rodahl, K.: Toxicity of Polar Bear Liver, Nature **164**: 530 (Sept. 24) 1949.
14. Toomey, J. A., and Morissette, R. A.: Hypervitaminosis A, Am. J. Dis. Child. **73**: 473 (April) 1947.
15. Josephs, H. W.: Hypervitaminosis A and Carotenemia, Am. J. Dis. Child. **67**: 33 (Jan.) 1944.
16. Rothman, F. A., and Leon, E. E.: Hypervitaminosis A, Radiology **51**: 368 (Sept.) 1948. Wyatt, T. C.; Carabello, C. A., and Fletcher, M. E.: Hypervitaminosis A: Report of a Case, to be published. Caffey, J.: Poisoning Due to Excess Vitamin A: Its Relation to Infantile Cortical Hyperostosis, Am. J. Dis. Child. **79**: 404 (Feb.) 1950.

pain when vitamin A is withheld, and prompt recovery after exclusion of vitamin A from the diet.

There is no danger of the development of hypervitaminosis A except when excessively large doses of the concentrate have been ingested over long periods. There is a wide zone of safety between the prophylactic and the dangerous doses of vitamin A.

(An extensive discussion of vitamin A deficiency appears in chapter 21 of the Handbook of Nutrition.)

VITAMIN E

Chemistry.—In 1925, Evans and co-workers [17] and Matill demonstrated that vitamin E must be included in the diet of the rat to insure successful reproduction. Vitamin E activity is exhibited by at least three naturally occurring compounds. They are alpha, beta and gamma-tocopherol. All these are fat-soluble substances that are only slightly soluble in water. They are stable at high temperatures (200 C.) but rapidly lose their activity in the presence of ultraviolet rays or mild oxidizing agents.

Because the three tocopherols which have been demonstrated to have vitamin E activity are so closely related, they are all referred to as vitamin E. Synthetic racemic tocopherol acetate in olive oil is the international standard preparation of vitamin E. The international unit is the vitamin E activity of 1.0 mg. of the standard preparation. This quantity represents the average amount of the substance which prevents resorption of the fetus when administered to rats deprived of vitamin E.

Vitamins E and their esters are easily absorbed from the intestinal tract. These vitamins are stored in small amounts in body fats, muscles and the anterior lobe of the pituitary gland. Although they are fat soluble they are not distributed according to this chemical property. Tissue of the heart and lungs, although it contains relatively small amounts of fat, may contain more of the vitamin E than body fat and much more than the liver.[18]

Sources.—The animal organism contains only small amounts of vitamin E and finds its richest supply in plant materials, particularly in vegetable oils and green leaves. Wheat germ oil is the richest natural source of vitamin E, but the vitamin is also found in considerable quantities in lettuce oil, rice germ oil, cottonseed oil and other seed grain oils. Synthetic tocopherols are also available commercially.

Requirements: Practically nothing is known concerning the requirement of man for vitamin E. Comparatively few clinical studies dealing with the role of vitamin E in human physiology have been made, and thus far they have not led to definite conclusions. There seems to be agreement that vitamin E is of no value in the treatment of sterility in man. In fact, it is not known whether or not manifestations of a real deficiency of the vitamin have ever been observed in man.

Physiologic Aspects.—Reproductive System: The effect on the rat of deprivation of vitamin E is well known. In the male it produces irreversible sterility characterized by degeneration of the germinal epithelium; in the female it has been shown that, although gestation starts normally after conception, in moderate deficiency gestation may be prolonged, with the fetus born dead or the newborn rat dying in the postpartum period. When there is a pronounced deficiency of vitamin E the fetus may begin to develop normally but later degenerates and dies and may even undergo complete resorption. These observations led to the use of the terms "antisterility vitamin" and "reproductive vitamin." Since these terms are not applicable to human nutrition, it is probable that their use should be abandoned.

Muscle Metabolism: In 1928 Evans and Burr [19] first called attention to the muscular paralysis which developed in the suckling rats of mothers who had a deficiency of vitamin E. Since then lesions have been demonstrated in the muscles of rabbits, ducklings, young guinea pigs, hamsters and older rats on diets deficient in vitamin E. These lesions may be prevented or cured by the use of tocopherol.

Antioxidant Activity: Perhaps the most striking chemical property of the vitamins E is their antioxidant activity. Recently considerable evidence has accumulated which would indicate that their physiologic actions may be the result of this characteristic. Oxygen consumption and carbon dioxide elimination is greatly increased in the dystrophic muscle, and the consumption of oxygen by the dystrophic muscle is reduced dramatically by the administration of tocopherol to the animal or by the addition of tocopherol to the muscle in vitro before the uptake of oxygen is measured. Vitamin A and carotene are particularly sensitive to oxidative destruction in the presence of unsaturated fats, and vitamin E apparently offers them considerable protection, both in the cell and in the alimentary tract.[20]

Clinical Aspects.—Experimental work with animals has stimulated observers to seek ways of applying their information to the problems of clinical medicine. However, there appears to be general agreement that vitamin E is of no value in the treatment of sterility. The possibility that it may be of value in the treatment of habitual abortion requires further study. Also, although vitamin E has been suggested in the treatment of such degenerative conditions as amyotrophic lateral sclerosis, further work seems to be required to establish the value or lack of value of this vitamin in such conditions. It appears that patients with muscular dystrophy have neither a primary lack of vitamin E nor a deficiency secondary to poor absorption or chemical distribution of tocopherol.[21] Extensive studies of progressive muscular dystrophy have shown that administration of neither alpha-tocopherol nor wheat germ oil has any effect on the disease in man.[22] However, it is still conceivable that in this disorder there may be some interference with intermediate steps in the utilization of alpha-tocopherol. Recently, Milhorat and Bartels [23] have suggested that such a defect exists. Current evidence does not indicate that vitamin E is useful in the treatment of any primary neurologic disorder.

In instances in which patients were given small doses of vitamin E, no toxic reactions have been reported. Administration of large doses of wheat germ oil have given rise to only minor symptoms.

17. Evans, H. M., and Burr, G. O.: The Anti-Sterility Vitamin Fat Soluble E. Proc. Nat. Acad. Sc. 11:334, 1925.
18. Mason, K. E.: Distribution of Vitamin E in the Tissues of the Rat, J. Nutrition 23:71 (Jan.) 1942.
19. Evans, H. M., and Burr, G. O.: Development of Paralysis in the Suckling Young of Mothers Deprived of Vitamin E, J. Biol. Chem. 76:273 (Jan.) 1928.
20. Hickman, K. C. D.; Harris, P. L., and Wooddide, M. R.: Interrelationship of Vitamins A and E, Nature 150:91 (July 18) 1942.
21. Mixer, A. S., and Frank, H. K.: Serum Tocopherol: Its Relation to Failure of Vitamin E-Therapy for Pseudohypertrophic Muscular Dystrophy, Am. J. Dis. Child. 67:371 (May) 1944.
22. Shank, R. E.; Gilder, H., and Hoagland, C. L.: Studies of Diseases of Muscle. I. Progressive Muscular Dystrophy: Clinical Review of Forty Cases, Arch. Neurol. & Psychiat. 52:431 (Dec.) 1944. Pappenheimer, A. M.: Muscular Disorders Associated with Deficiency of Vitamin E, Physiol. Rev. 23:37 (Jan.) 1943.
23. Milhorat, A. F., and Bartels, W. E.: The Defect in Utilization of Tocopherol in Progressive Muscular Dystrophy, Science 101:193 (Jan. 26) 1945.

VITAMIN K

Chemistry.—Vitamin K has been shown to be essential to human nutrition.[24] Natural vitamin K was first isolated from alfalfa and proved to be 2-methyl-3-phytyl-1,4-naphthoquinone. It is a fat-soluble vitamin, easily destroyed by alkali, strong acid, sunlight or artificial light and has been prepared synthetically. Another natural vitamin K, vitamin K_2, was first isolated from putrefied fish meal. Its exact structure is not known but is suspected to be 2-methyl-3-difarnesyl-1,4-naphthoquinone.

Many synthetic substances which possess a quinoid nucleus have vitamin K activity. Of all the naphthoquinone derivatives studied which displayed some degree of vitamin K activity, 2-methyl-1,4-naphthoquinone has proved to be the most active. Some investigators have found this compound to be three times as potent, on the basis of weight, as vitamin K_1. Because of the usefulness of the compound in clinical medicine the Council on Pharmacy and Chemistry of the American Medical Association authorized "menadione" as a nonproprietary name for this substance. The compound is only slightly soluble in water.[25] Its structural formula is shown in figure 2.

The need for a water-soluble material with vitamin K activity led to the testing of many other compounds.

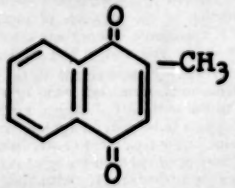


Fig. 2.—The structural formula of menadione.

Most of the water-soluble compounds which have vitamin K activity are, basically, 2-methyl-1,4-naphthoquinones or the corresponding hydroquinone. Such compounds as 4-amino-2-methyl-1-naphthol hydrochloride and sodium 2-methyl-1,4-naphthohydroquinone-3-sulfonate are water soluble and have been useful in clinical treatment. They are not as active as menadione but are sufficiently active to produce the desired clinical results.

Sources.—Vitamin K is distributed widely in nature, and among its richest sources are green leaves. Chlorophyll-bearing parts of the plant usually contain the largest amount of vitamin K. Alfalfa and spinach are rich in the vitamin, and cabbage, cauliflower, carrot tops, soy bean oil and seaweed are all good sources. In general, seeds, fruits and roots contain considerably less vitamin K than do green leaves. Most animal materials contain little vitamin K; milk and eggs contain small amounts. However, pork liver is an extremely rich source of this vitamin. Vitamin K_2 occurs in many bacteria, whereas yeast, molds and fungi contain little or no vitamin K.

Requirements.—The exact minimal requirements for vitamin K have not yet been determined. The requirement for vitamin K is usually satisfied by any acceptable diet, except perhaps for the infant in utero and during the first few days of life. It has been suggested that newborn infants require little vitamin K and that possibly 1 microgram of synthetic vitamin K is a sufficient daily amount. A dose of 1 to 2 mg. of pure vitamin K, or a synthetic compound exhibiting vitamin K activity is known to be adequate for correcting deficiency of vitamin K. It is known that the need for vitamin K is increased in cases of diarrhea and inadequate intestinal absorption. As much as 40 mg. of menadione may be required to correct the hypoprothrombinemia produced in man by the administration of dicumarol.[9]

Absorption and Storage.—It is necessary that adequate amounts of bile salts be present for proper absorption of natural vitamin K. Clinical experience has indicated that vitamin K is not absorbed through the colon or upper part of the ileum but is absorbed readily through the upper part of the jejunum. In recent reports emphasis has been placed on the fact that if excessive amounts of liquid petrolatum are administered with meals proper absorption of this vitamin may be prevented.

Apparently vitamin K is not stored easily in the body. Clinical investigation indicates that the little that is stored in the body is stored in the liver. Vitamin K has not been found in the urine or in human bile, but it has been found in the feces. It remains to be established whether the vitamin K found in feces is there because of the presence of micro-organisms known to contain vitamin K or because of actual excretion of the substance. Some investigators have held the opinion that man obtains some of his supply of vitamin K from intestinal organisms, but this has not been definitely proved. Prothrombin deficiency can be produced in animals by administration of sulfaguanidine, succinylsulfathiazole, sulfapyrazine or sulfadiazine; prothrombin deficiency is prevented when vitamin K is administered. This action has been explained on the basis of the effect of these drugs on Escherichia coli in the intestinal tract.

Physiologic Action.—Little is known concerning the precise action of vitamin K in the animal organism. It is known to pass readily from mother to fetus and to be associated intimately with normal physiologic function of the liver. Avitaminosis K in man, from any cause, results in a decrease in the concentration of prothrombin of the blood; the prothrombin content of the blood increases rapidly after the administration of vitamin K. Prothrombin administered orally does not show vitamin K activity. This indicates that the vitamin does not form a part of the prothrombin molecule. The manner in which vitamin K participates in the formation of prothrombin is not known. It has been suggested that vitamin K is a reversible oxidation-reduction catalyst. More recently, a hypothesis has been reported which suggests that the antihemorrhagic effect of vitamin K and its synthetic analogues is due to their biochemical degeneration to phthalic acid. The authors of this hypothesis regarded phthalic acid as the true carrier of biologic activity.[26]

(A discussion of vitamin K deficiency appears in chapter 21 of the Handbook of Nutrition.)

24. Dam, Henrik: The Antihaemorrhagic Vitamin of the Chick: Occurrence and Chemical Nature, Nature 138:1652 (April 27) 1935. Butt, H. R.; Snell, A. M., and Osterberg, A. E.: The Use of Vitamin K and Bile in Treatment of the Hemorrhagic Diatheses in Cases of Jaundice, Proc. Staff Meet., Mayo Clin. 13:174 (Feb. 2) 1938. Warner, E. D.; Brinkhous, K. M., and Smith, H. P.: Bleeding Tendency of Obstructive Jaundice: Prothrombin Deficiency and Dietary Factors, Proc. Soc. Exper. Biol. & Med. 37:628 (Jan.) 1938.

25. Fieser, L. F.: The Chemistry of Vitamin K, Ann. Int. Med. 13:648 (Oct.) 1939.

26. Shemin, D. M.; Sehulin, I. A., and Schwenk, J. B.: Studies in the Vitamin K Group. II. The Mechanism of Biological Action of Vitamin K and of its Synthetic Analogs, J. Am. Chem. Soc. 68:2164 (Nov.) 1946.

TOXICITY

Serious untoward reactions have not been observed in cases in which patients have been given reasonable therapeutic doses of either natural concentrates of vitamin K, synthetic vitamin K, or any of the synthetic compounds now available commercially which exhibit antihemorrhagic activity. Apparently blood pressure, respiration, permeability of capillaries or urinary excretion have not been affected after administration of any of these compounds. However, oral administration of doses of menadione as large as 180 mg. to human beings have caused vomiting and porphyrinuria. These huge doses, however, are so obviously greater than those employed for therapeutic use that at present it appears safe to continue therapeutic administration of these synthetic compounds. As a rule, hyperprothrombinemia is not produced in man when large doses of vitamin K are administered.

Council on Pharmacy and Chemistry

REPORTS OF THE COUNCIL

The Council on Pharmacy and Chemistry has authorized publication of the following statement.

R. T. STORMONT, M.D., *Secretary.*

WARNING ON OXYLIN TABLETS

The Federal Food and Drug Administration warns hospitals, physicians, pharmacists and consumers that a drug is on the market which may cause poisoning. It is Oxylin Tablets uncoated, distributed by Drexel Laboratories and Louis E. Evons of Drexel Hill and Upper Darby, Pa. The tablets contain boric acid. Sensitive persons may receive sufficient boric acid from the uncoated Oxylin Tablets to result in serious poisoning.

Available records show that the tablets have been distributed in Maryland, New Jersey, New York and Pennsylvania. The distributor operates along the Atlantic seaboard and as far west as Chicago. Persons who have been using these tablets should discontinue their use immediately. Dealers and others who have them should notify the Food and Drug Administration and return the tablets to the manufacturer.

NEW AND NONOFFICIAL REMEDIES

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

R. T. STORMONT, M.D., *Secretary.*

PROTEIN HYDROLYSATES (See New and Nonofficial Remedies 1949, p. 413).

The following dosage forms have been accepted:

THE NATIONAL DRUG COMPANY, PHILADELPHIA 44

Powder Aminonat (Unflavored): 454 Gm. packages: A pancreatic digest of lactalbumin containing amino acids and polypeptides equivalent to about 90 per cent hydrolyzed protein providing 130 calories per 28.35 Gm. It has 61 per cent of its total nitrogen as amino nitrogen.

Powder Aminonat (Flavored): 226.8 Gm. and 454 Gm. packages: A pancreatic digest of lactalbumin containing amino acids and polypeptides equivalent to about 87.5 per cent hydrolyzed protein providing 128 calories per 28.35 Gm. It has 61 per cent of its total nitrogen as amino nitrogen. It contains 2.5 per cent flavoring material.

U. S. trademark 424,237.

ALUMINUM HYDROXIDE GEL (See New and Nonofficial Remedies 1949, p. 333).

The following dosage form has been accepted:

VELTEX COMPANY, BIRMINGHAM, ALA.

Gel Aluminum Hydroxide: 480 cc. and 3.84 liter bottles: Contains the equivalent of 3.95 to 4.3 per cent of aluminum oxide with saccharin and oil of peppermint as flavoring agents and sodium benzoate.

DIPHTHERIA TOXOID, ALUMINUM HYDROXIDE ADSORBED.—Aluminum Hydroxide Adsorbed Diphtheria Toxoid is a sterile suspension of diphtheria toxoid adsorbed on aluminum hydroxide from the solution in which the products of growth of the diphtheria bacillus (Corynebacterium diphtheriae) have developed and have been so modified by special treatment as to have lost the ability to cause toxic effects in guinea pigs but retain the property of inducing active immunity. The antigenic value is such that not more than one-half the volume, which is to be recommended for the lot under test as the total human immunizing dose, produces at least 2 units of antitoxin per cc. of serum in not more than four weeks in an aliquot serum-pool from not less than four guinea pigs. Aluminum Hydroxide Adsorbed Diphtheria Toxoid complies with the official potency and other requirements of the National Institutes of Health of the United States Public Health Service.

Actions and Uses.—(See monograph on Diphtheria Toxoid.) Because of the physical character of the aluminum hydroxide adsorbed product, absorption is delayed.

Dosage.—Hypodermic, for active immunization 0.5 cc. to be repeated twice with an interval of three to four weeks.

CUTTER LABORATORIES, BERKELEY 1, CALIF.

Diphtheria Toxoid, Alhydrox: 1 cc. vials (one immunization) and 5 cc. vials (five immunizations). Preserved with thimerosal 1:10,000.

DIPHTHERIA AND TETANUS TOXOIDS, ALUMINUM HYDROXIDE ADSORBED.—Diphtheria and Tetanus Toxoids, Aluminum Hydroxide Adsorbed is a turbid, white or slightly gray suspension prepared by mixing suitable quantities of aluminum hydroxide adsorbed diphtheria toxoid and aluminum hydroxide adsorbed tetanus toxoid, each of which possesses adequate potency to permit combining. The toxoids shall be mixed in such proportions as to provide an immunizing dose of each toxoid in the total dosage prescribed on the label. Aluminum Hydroxide Adsorbed Diphtheria and Tetanus Toxoids complies with the requirements of the National Institutes of Health of the United States Public Health Service.

Actions and Uses.—See monograph on Diphtheria and Tetanus Toxoids. Because of the physical character of the aluminum hydroxide adsorbed product, absorption is delayed.

Dosage.—Hypodermic, for active immunization, 0.5 cc. to be repeated once with an interval of four to six weeks.

CUTTER LABORATORIES, BERKELEY 1, CALIF.

Diphtheria and Tetanus Toxoids Alhydrox: 1 cc. vials (one immunization) and 5 cc. vials (five immunizations). Preserved with thimerosal 1:10,000.

TETANUS TOXOID, ALUMINUM HYDROXIDE ADSORBED.—Aluminum Hydroxide Adsorbed Tetanus Toxoid is a sterile suspension of tetanus toxoid, adsorbed on aluminum hydroxide from a solution in which the products of growth of the tetanus bacillus (Clostridium tetani) have developed and have been so modified by special treatment as to have lost the ability to cause toxic effects in guinea pigs, but retain the property of inducing active immunity. The antigenic value is such that not more than one-half of the volume, which is to be recommended for the lot under test as the total human immunizing dose, produces at least 2 units of antitoxin per cc. of serum in not more than six weeks in an aliquot serum-pool from not less than four guinea pigs.

Aluminum Hydroxide Adsorbed Tetanus Toxoid complies with the official potency test and other requirements of the National Institutes of Health of the United States Public Health Service.

Actions and Uses.—(See monograph on Tetanus Toxoid.) Because of the physical character of the aluminum hydroxide adsorbed product, absorption is delayed.

Dosage.—Hypodermic, for active immunization, 0.5 cc. to be repeated twice with intervals of three to four weeks.

CUTTER LABORATORIES, BERKELEY 1, CALIF.

Tetanus Toxoid, Alhydrox: 1 cc. vials (one immunization) and 5 cc. vials (five immunizations). Preserved with thimerosal 1:10,000.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 NORTH DEARBORN STREET - - - CHICAGO 10, ILL.

Edited by
AUSTIN SMITH, M.D.

Associate Editor
JOHNSON F. HAMMOND, M.D.

Editor for Current Medical Literature, GEORGE HALPERIN, M.D.

Subscription price - - - - Twelve dollars per annum in advance

Cable Address - - - - "Medic, Chicago"

Please send us promptly notice of change of address, giving both old and new; always state whether the change is temporary or permanent. Such notice should mention all journals received from this office. Important information regarding contributions will be found on second advertising page following reading matter

SATURDAY, MAY 20, 1950

SAN FRANCISCO MEETING

The San Francisco meeting of the American Medical Association offers promise of being one of the most satisfying and important annual sessions of this great medical organization. Thousands of members and Fellows already have registered; others are applying daily. Those who register in advance will not have to spend time filling in cards at the place of meeting; they merely will walk to an appropriate window, present their advance registration card and receive badge, program and any other material that may be given out at that time. Approximately 10,000 physicians are expected to attend the ninety-ninth annual meeting of the American Medical Association, which will be held from June 26 to June 30. General scientific meetings will be held on the first two days of the convention, sectional meetings on the next three days.

Elsewhere in this issue of THE JOURNAL are the program and other information, such as descriptions of scientific and technical exhibits. Included in the special features in the scientific exhibit will be exhibits on tropical medicine presented with the cooperation of the American Society for Tropical Medicine and the American Foundation for Tropical Medicine; a blood bank operated by the California Medical Association Blood Bank Commission; fractures; speech rehabilitation presented by the Section on Physical Medicine and Rehabilitation with the cooperation of the National Society for Crippled Children and Adults and the American Speech and Hearing Association, and diabetes and various specialties of medicine, with emphasis being placed on the interest of physicians in general practice.

Motion pictures and colored television will be shown in Masonic Hall in the Civic Center, which is near the Auditorium. These two methods of audiovisual instruction will be conducted simultaneously, permitting the observer to compare one with the other. The motion pictures have been carefully selected with the cooperation of the A. M. A. Committee on Medical Motion Pictures, and an outstanding program has been developed. Of particular interest will be a premier showing of a motion picture entitled Breast Self Examination, which was prepared jointly by the American Cancer Society and the National Cancer Institute. Although this film was designed primarily for showing to groups of women, it is recommended that physicians see it so that they will be familiar with its message.

In the General Scientific Meetings will be featured a symposium on Atomic Energy in War and Peace. Other topics will be concerned with certain aspects of cancer, antibiotics, drugs for allergy, psychiatry, pituitary adrenocorticotropic hormone (ACTH), cortisone, proteins for patients undergoing operation and the use of estrogens. This does not, however, complete the list. Other important subjects will be offered.

The House of Delegates will meet at the Palace Hotel, the headquarters for the convention. Many topics of importance will be discussed. One of much interest will be the establishment of an organization for medical students.

Local and network radio and television programs emanating or resulting from the meeting will be covered by the A. M. A. Bureau of Health Education. Messenger service, script writing when necessary and other services will be provided by specially trained personnel. Of particular interest will be the address when the president is inaugurated. It will be broadcast over a nationwide network Tuesday evening (June 27).

The activities of the Woman's Auxiliary and the entertainment for ladies will provide highlights for the wives and guests of physicians. Golf, tours, renowned dining places and other attractions will provide additional appeal for physicians and their families. Many are planning trips from San Francisco to Hawaii, along the coast and elsewhere. Vacations and attendance at the meeting are being combined. Fraternities are planning luncheons and dinners. The annual award for distinguished service to the medical profession and the presidential ball are other outstanding features.

This convention should have appeal for all who do attend. Without doubt, it will be the source of innumerable pleasant memories for attending physicians and their families. There are still rooms available, but they should be requested promptly. For pleasure San Francisco has much to offer. For graduate medicine the A. M. A. annual convention is of incalculable aid to the searching physician who is eager to learn.

THE AMERICAN MEDICAL DIRECTORY

The eighteenth edition of the AMERICAN MEDICAL DIRECTORY has been completed, and copies are now being shipped to subscribers. The long interval of eight years between this edition and the previous one made necessary the setting of new type for the entire book. The loss of experienced clerical help during the war, labor conditions and printing difficulties contributed to the delay in publication. Previous editions were compiled and printed in the headquarters building of the American Medical Association in Chicago; this edition was compiled at headquarters but was set in type and printed in another city.

INCREASED INFORMATION IN THE NEW DIRECTORY

The 1950 Directory contains 2,913 pages and lists information on 219,677 physicians in the United States, its dependencies and Canada and American graduates and licentiates located temporarily abroad. Since the seventeenth edition of the Directory was issued, in 1942, hundreds of thousands of changes of address have occurred; the new addresses are listed in the latest edition; 51,984 names have been added and 28,242 other names have been deleted from the book because of death or other reasons. Additional thousands of changes were made in society affiliations, teaching appointments at medical schools, specialties and hospital data. In the 1942 issue of the Directory the total number of physicians listed in the United States was 180,496; in the 1950 edition the number is 201,277, a gain of 20,781. The average yearly gain for the past eight years was 2,598.

SHIFTS IN PHYSICIAN POPULATION

The Pacific states show the largest increase in physicians, the Atlantic and Great Lakes states a moderate increase, and the West Central states the greatest losses. California leads in the gain, with 16,668 physicians in 1950 as compared with 12,365 in 1942. New York state shows a gain of 2,284, Texas 772, Pennsylvania 704, Florida 634 and Massachusetts 603. Among the twenty-four largest cities in the United States, New York is first with a gain of 1,426 and Kansas City, Mo., twenty-fourth with a gain of 18.

STATISTICAL INFORMATION TABULATED IN THE DIRECTORY

The eighteenth edition of the Directory presents five tables of statistical information. The previous editions contained only two tables—the first compared the number of physicians and hospitals in the current edition with the numbers in the preceding edition, and the second showed the number of physicians listed by state in each edition of the Directory beginning with volume 1 in 1906.

In the 1950 issue of the Directory tables 1 and 2 show the current figures. The three new tables contain additional information. Table 3 lists the number of members and Fellows of the American Medical Association by state and provides a breakdown of the number of physicians according to type of practice. Table 4 lists by state the number of physicians specializing or especially interested in the various branches of medicine. Table 5 gives the number of hospitals listed by state in each edition of the Directory since 1906.

Table 3 reveals that 8,072 of the 201,277 physicians in the United States are permanent medical officers and 4,464 are reserve officers on active duty in the Army, Air Force, Navy, United States Public Health Service, Veterans Administration and Indian Service, a total of 12,536 physicians in government service. The remaining 188,741 physicians in the United States are in the following classifications: 72,550 physicians are in general practice, with 22,976 more in general practice giving special attention to a specialty; 54,891 limit their practice to a specialty; 9,700 are retired or not in practice; 3,737 are not in private practice, and 24,887 are serving as interns, resident physicians or full time physicians in hospitals.

Table 4, showing the distribution by states of those interested in a specialty, indicates that physicians who either limit their practice or give special attention to some branch of medicine total 90,464; this figure (which includes some physicians not in private practice and some in hospital service) compares with 67,388 in 1943. The number giving special attention to a specialty decreased slightly; the present directory lists 25,009, as compared with 26,819 in this group in 1943.

OTHER NEW FEATURES IN THE DIRECTORY

For the first time, postal zone numbers appear after the residence and office addresses in cities in which they are required by the Post Office. When one uses such addresses, the zone number should be inserted between the name of the city and that of the state in each case.

A new feature of this edition is the inclusion of data on the World Medical Association, covering historical material, officers and representatives, and the medical manpower of various nations.

A list of physicians deceased is published in this edition to record those physicians whose names were entered in the files of the Directory Department after publication of the seventeenth edition in 1942 and who have since died. The list has been inserted in the book preceding the alphabetical index of names.

EDITORIAL CHANGES

To gain space in the Directory, so that the book could contain information on more physicians without an increase in its size, it was necessary to make some editorial changes. The list of hospitals approved for internships and residencies, which formerly appeared in the front section of the Directory, was omitted; this information is contained each year in a special issue of THE JOURNAL. The list of permanent, full time medical

officers in the Army, Navy, Air Force, United States Public Health Service, Veterans Administration and Indian Service now appears only in the front section of the Directory with full biographic data. In previous editions such physicians were listed with biographic data under the city in which they were located and also in a separate list of officers for each service in the front section of the book.

Other information was deleted to save space. The office hours of physicians are no longer printed in the Directory. Another change in the listing of biographic data is the abbreviation of the middle name of the physician to an initial; the full name, for identification, is given in the alphabetical index. The names of presidents of boards of health, boards of medical examiners and state and county medical societies were omitted, but the Directory continues to list the names and addresses of the secretaries of these organizations. The section on the Philippines was omitted, inasmuch as the former dependency of the United States is now a republic.

ARRANGEMENT OF THE DIRECTORY

The Directory information is grouped into three sections. General information is contained in the front section preceding the state lists of physicians and hospitals; it includes data on the American Medical Association and the World Medical Association, statistical information on the medical profession, medical schools, examining boards in medical specialties, medical libraries and journals and members of special societies, and biographic information on permanent medical officers serving in regular units of the federal government.

The second section is arranged by state and province, with information on the medical practice act, secretaries of state boards of health, state boards of medical examiners and state and county medical societies preceding the lists of the registered hospitals and the legally qualified physicians in the state. The information on hospitals includes the year established, the number of beds, type of service, whether approved for internship and residency training, and the name of the medical director or superintendent. The biographic data on physicians show, whenever available, the year of birth, medical school and year of graduation, year licensed in the state in which located, medical society affiliations, specialty practiced, certification by a specialty board, professorships and residence and office addresses.

The third section of the Directory, the alphabetical index of physicians, lists the full name of the physician followed by the name of the city under which his biographic data are given.

The compiling of information for the eighteenth edition of the AMERICAN MEDICAL DIRECTORY was possible only with the cooperation of the medical profession and allied organizations. Various government agencies, deans of medical schools, secretaries of medical licensing boards, officers of constituent state associations and component county societies, special medical societies and examining boards in specialties, alumni associations, state, county and local health authorities, and thousands of physicians and correspondents gave helpful assistance in the preparation of this edition. Their help has been invaluable.

Current Comment

VOLUME III OF QUESTIONS AND ANSWERS

Volume III of QUESTIONS AND ANSWERS, which is just off the press, is now available. The publication of this volume has been delayed by circumstances incident to the recent war. The previous volume was published in 1942. The new volume contains answers to nearly 1,000 difficult questions which arose in the daily practice of physicians throughout the United States. These questions were carefully selected for their suitability to a handy reference book from the Queries and Minor Notes published in THE JOURNAL during the last seven years. The answers were prepared by experts in the various fields of medicine. Much of the information provided in volume III of QUESTIONS AND ANSWERS would be difficult to find elsewhere in such concise form. This information will be helpful to general practitioners, specialists, public health workers and others in the medical and allied professions. Further details concerning this popular book appears on advertising page 137 in this issue of THE JOURNAL. It may be obtained through the Order Department of the American Medical Association.

SIMPLIFIED EXPERIMENTAL HYPERTENSION

A simplified method of producing arterial hypertension in laboratory animals is suggested by Rau[1] of the Department of Physiology, University of Missouri. Previous methods include instrumental or surgical constriction of the renal arteries and the application of cellophane or silk around both kidneys. These methods offer technical difficulties when applied to smaller laboratory animals. Using the retroperitoneal approach Rau exposed one kidney of a dog. The surrounding fat and fascia were carefully removed. Plastic (butyl methacrylate polymer) dissolved in acetone or toluene was then sprayed by means of a large atomizer over the kidney, where it hardens into a tough capsule. The capsules are not disturbed by body fluids, body temperature or movements of the animal. Two weeks later the procedure was repeated on the opposite kidney. After the second operation the blood pressure rises at the same rate as that noted[2] with the older technics, and persists at 190 mm. of mercury or above.

1. Rau, G. C.: Science 111:229 (March 3) 1950.
2. Page, I. H.: Production of Persistent Arterial Hypertension by Cellophane Perinephritis, J. A. M. A. 115:2046 (Dec. 2) 1939.

THE SAN FRANCISCO SESSION

AMERICAN MEDICAL ASSOCIATION, NINETY-NINTH ANNUAL SESSION SAN FRANCISCO, JUNE 26-30, 1950

OFFICIAL CALL

To the Officers, Fellows and Members of the American Medical Association

The ninety-ninth annual session of the American Medical Association will be held in San Francisco, Calif., June 26-30, 1950.

The House of Delegates will convene at 10 a. m. Monday, June 26. In the House the representation of the various constituent associations for 1950 is as follows:

Alabama	2	Nevada	1
Arizona	1	New Hampshire	1
Arkansas	2	New Jersey	6
California	11	New Mexico	1
Colorado	2	New York	23
Connecticut	3	North Carolina	3
Delaware	1	North Dakota	1
District of Columbia	2	Ohio	8
Florida	2	Oklahoma	2
Georgia	3	Oregon	2
Idaho	1	Pennsylvania	11
Illinois	10	Rhode Island	1
Indiana	4	South Carolina	2
Iowa	3	South Dakota	1
Kansas	2	Tennessee	3
Kentucky	3	Texas	7
Louisiana	2	Utah	1
Maine	1	Vermont	1
Maryland	3	Virginia	3
Massachusetts	7	Washington	3
Michigan	5	West Virginia	2
Minnesota	4	Wisconsin	3
Mississippi	2	Wyoming	1
Missouri	4	Alaska	1
Montana	1	Hawaii	1
Nebraska	3	Isthmian Canal Zone	1
		Puerto Rico	1

The scientific sections of the American Medical Association, the Medical Corps of the Army, the Medical Corps of the Navy, the Medical Corps of the Air Force, the Public Health Service and the Veterans Administration are entitled to one delegate each.

The Scientific Assembly of the Association will open with the General Scientific Meetings to be held Monday, June 26, starting at 2 p. m. and continuing throughout the morning and afternoon of Tuesday, June 27. The Inauguration Meeting, at which the President will be installed, will be held on Tuesday, June 27. The sections will meet Wednesday, Thursday and Friday, June 28, 29, 30, as follows:

CONVENING AT 9 A. M. THE SECTIONS ON	CONVENING AT 2 P. M. THE SECTIONS ON
Pediatrics.	Internal Medicine.
Surgery, General and Abdominal.	Obstetrics and Gynecology.
Ophthalmology.	Laryngology, Otology and Rhinology.
Experimental Medicine and Therapeutics.	General Practice.
Nervous and Mental Diseases.	Orthopedic Surgery.
Dermatology and Syphilology.	Urology.
Gastro-Enterology and Proctology.	Pathology and Physiology.
Radiology.	Anesthesiology.
Diseases of the Chest.	Physical Medicine and Rehabilitation.
Preventive and Industrial Medicine and Public Health.	Miscellaneous Topics: Sessions on Military Medicine and Surgery.

The Registration Bureau, which will be located in the Auditorium, will be open from 8:30 a. m. until 5:30 p. m., Monday, Tuesday, Wednesday and Thursday, June 26, 27, 28 and 29, and from 8:30 a. m. to 12 noon Friday, June 30.

ERNEST E. IRONS, President.
F. F. BORZELL, Speaker, House of Delegates.
GEORGE F. LULL, Secretary.

MEMBERS OF THE HOUSE OF DELEGATES

A Preliminary Roster of the Legislative Body of the American Medical Association

The list of members of the House of Delegates for the session is incomplete. Following is a list of the holdover members of the House of Delegates and of the newly elected members who have been reported to the Secretary in time to be included:

STATE DELEGATES

ALABAMA
Carl A. Grote, Huntsville
J. Paul Jones, Camden

ARIZONA
Jesse D. Hamer, Phoenix

ARKANSAS
Rufus B. Robins, Camden
William R. Brooksher, Fort Smith

CALIFORNIA
H. Gordon MacLean, Oakland
E. Vincent Askey, Los Angeles
John W. Cline, San Francisco
Donald Cass, Los Angeles
Ralph B. Emden, Long Beach
Robertson Ward, San Francisco
Samuel J. McClendon, San Diego
Eugene F. Hoffman, Los Angeles
John Winston Green, Vallejo
Lewis A. Alesen, Los Angeles
R. Stanley Kneeshaw, San Jose

COLORADO
William H. Halley, Denver
George A. Unfug, Pueblo

CONNECTICUT
Joseph H. Howard, Bridgeport
Creighton Barker, New Haven
Thomas P. Murdock, Meriden

DELAWARE
James Beebe, Lewes

DISTRICT OF COLUMBIA
Herbert P. Ramsey, Washington
Hugh H. Hussey, Jr., Washington

FLORIDA
Homer L. Pearson Jr., Miami
Louis M. Orr II, Orlando

GEORGIA
Allen H. Bunce, Atlanta
Charles H. Richardson Sr., Macon
Benjamin H. Minchew, Waycross

IDAHO
H. B. Woolley, Idaho Falls

ILLINOIS
G. Henry Mundt, Chicago
Warren W. Furey, Chicago
Robert H. Hayes, Chicago
Fred H. Muller, Chicago
Charles H. Phifer, Chicago
Mather Pfeiffenberger, Alton
Harlan A. English, Danville
Bernard Klein, Joliet
Willis L. Lewis, Herrin
Everett P. Coleman, Canton

INDIANA
Homer G. Hamer, Indianapolis
Alfred S. Giordano, South Bend
Franklin S. Crockett, Lafayette
William M. Cockrum, Evansville

IOWA
George Braunlich, Davenport
Donald C. Conzett, Dubuque
Gerald V. Caughlan, Council Bluffs

KANSAS
John M. Porter, Concordia
Laurence S. Nelson Sr., Salina

KENTUCKY
Joshua B. Lukins, Louisville
Clark Bailey, Harlan
Bruce Underwood, Louisville

LOUISIANA
Val H. Fuchs, New Orleans
James Q. Graves, Monroe

MAINE
Thomas A. Foster, Portland

MARYLAND
Warde B. Allen, Baltimore
Jacob W. Bird, Sandy Spring
John W. Parsons, Baltimore

MASSACHUSETTS
Patrick J. Sullivan, Dalton
John J. Curley, Leominster
Walter G. Phippen, Salem
Frank W. Snow, Newburyport
Earle M. Chapman, Boston
John M. Fallon, Worcester
Leland S. McKittrick, Brookline

MICHIGAN
Leo G. Christian, Lansing
William A. Hyland, Grand Rapids
Wyman D. Barrett, Detroit
Robert L. Novy, Detroit
Willis H. Huron, Iron Mountain

MINNESOTA
William A. Coventry, Duluth
J. Arnold Bargen, Rochester
A. E. Cardle, Minneapolis
George A. Earl, St. Paul

MISSISSIPPI
James P. Wall, Jackson
Felix J. Underwood, Jackson

MISSOURI
Howard B. Goodrich, Hannibal
Warren L. Allee, Eldon
Robert E. Schluster, St. Louis
James R. McVay, Kansas City

MONTANA
Raymond F. Peterson, Butte

NEBRASKA
Joseph D. McCarthy, Omaha
Karl S. J. Hohlen, Lincoln

NEVADA
Roland W. Stahr, Reno

NEW HAMPSHIRE
Doering G. Smith, Nashua

NEW JERSEY
J. Wallace Hurff, Newark
David B. Allman, Atlantic City
Elmer P. Weigel, Plainfield
Joseph F. Londrigan, Hoboken
William F. Costello, Dover
James F. Norton, Jersey City

NEW MEXICO
John F. Conway, Clovis

NEW YORK
Walter P. Anderton, New York
Albert F. R. Andresen, Brooklyn
James R. Reuling, Bayside
Floyd S. Winslow, Rochester
Herbert H. Mocken, Buffalo
Denver M. Vickers, Cambridge
Ralph T. B. Todd, Tarrytown
William B. Rawls, New York
Edward P. Flood, New York
Leo F. Schiff, Plattsburg
B. Wallace Hamilton, New York
Clarence G. Bandler, New York
John J. Masterson, Brooklyn
Leo L. Simpson, Rochester
Thomas A. McGoldrick, Brooklyn
George W. Kosmak, New York
J. Stanley Kenney, New York
Peter J. DiNatale, Batavia
Andrew A. Eggston, Mount Vernon
Maurice J. Dattelbaum, Brooklyn
R. J. Azzari, New York
Peter M. Murray, New York
Joseph P. Henry, Rochester

NORTH CAROLINA
Charles F. Strosnider, Goldsboro
R. O. Edwards, Asheville
Millard D. Hill, Raleigh

NORTH DAKOTA
Willard A. Wright, Williston

OHIO
Edgar P. McNamee, Cleveland
Carl A. Linche, Carrollton
George A. Woodhouse, Pleasant Hill
William M. Skipp, Youngstown
L. Howard Schriver, Cincinnati
Clifford C. Sherburne, Columbus
Frank M. Wiseley, Findlay
Arthur A. Brindley, Toledo

OKLAHOMA
James Stevenson, Tulsa
John F. Burton, Oklahoma City

OREGON
Raymond M. McKeown, Coos Bay
Edward H. McLean, Oregon City

PENNSYLVANIA
William Bates, Philadelphia
Francis P. Borrell, Philadelphia
Harold B. Gardner, Pittsburgh
Charles L. Shafer, Kingston
Howard K. Petry, Harrisburg
William L. Estes Jr., Bethlehem
James L. Whitehill, Rochester
George S. Klump, Williamsport
Elmer Hess, Erie
James Z. Appel, Lancaster
G. C. Engel, Philadelphia

RHODE ISLAND
Charles L. Farrell, Pawtucket

SOUTH CAROLINA
Hugh P. Smith, Greenville
Julian P. Price, Florence

SOUTH DAKOTA
H. Russell Brown, Watertown

TENNESSEE
Robert B. Wood, Knoxville
William C. Chaney, Memphis
Charles W. Hamilton, Nashville

TEXAS
John K. Glen, Houston
Allen T. Stewart, Lubbock
Robert B. Homan Jr., El Paso
Joseph B. Copeland, San Antonio
Truman C. Terrell, Fort Worth
Britton K. Pickett Sr., Carrizo Springs
Edward H. Cary, Dallas

UTAH
George M. Fister, Ogden

VERMONT
Paul K. French, Burlington

VIRGINIA
J. Morrison Hutcheson, Richmond
Henry B. Mulholland, Charlottesville
John M. Emmett, Clifton Forge

WASHINGTON
Ross D. Wright, Tacoma
Raymond L. Zech, Seattle
A. G. Young, Wenatchee

WEST VIRGINIA
Walter E. Vest, Huntington
George F. Evans, Clarksburg

WISCONSIN
Stephen E. Gavin, Fond du Lac
James C. Sargent, Milwaukee
William D. Stovall, Madison

WYOMING
Roscoe H. Reeve, Casper

HAWAII
Alfred S. Hartwell, Honolulu

PUERTO RICO
F. Sanchez Castano, Vega Baja.

DELEGATES FROM THE SECTIONS AND GOVERNMENT SERVICES

INTERNAL MEDICINE
Charles T. Stone, Galveston, Texas

SURGERY, GENERAL AND ABDOMINAL
Grover C. Penberthy, Detroit

OBSTETRICS AND GYNECOLOGY
Harvey B. Matthews, Brooklyn

OPHTHALMOLOGY
William L. Benedict, Rochester, Minn.

LARYNGOLOGY, OTOLOGY AND RHINOLOGY
Gordon F. Harkness, Davenport, Iowa

PEDIATRICS
William Weston, Columbia, S. C.

EXPERIMENTAL MEDICINE AND THERAPEUTICS
Edgar V. Allen, Rochester, Minn.

PATHOLOGY AND PHYSIOLOGY
Leonard W. Larson, Bismarck, N. D.

NERVOUS AND MENTAL DISEASES
Percival Bailey, Chicago

DERMATOLOGY AND SYPHILOLOGY
Everett C. Fox, Dallas, Texas

PREVENTIVE AND INDUSTRIAL MEDICINE AND PUBLIC HEALTH
Stanley H. Osborn, Hartford, Conn.

UROLOGY
J. J. Crane, Los Angeles

ORTHOPEDIC SURGERY
Edward L. Compere, Chicago

GASTRO-ENTEROLOGY AND PROCTOLOGY
Louis A. Buie, Rochester, Minn.

RADIOLOGY
Byrl R. Kirklin, Rochester, Minn.

ANESTHESIOLOGY
Henry S. Ruth, Haverford, Pa.

GENERAL PRACTICE
Paul A. Davis, Akron, Ohio

DISEASES OF THE CHEST
Hollis E. Johnson, Nashville, Tenn.

UNITED STATES ARMY
George E. Armstrong

UNITED STATES NAVY
Joel T. Boone

UNITED STATES AIR FORCE
Dan C. Ogle

PUBLIC HEALTH SERVICE
W. Palmer Dearing

VETERANS ADMINISTRATION
Edward H. Cushing

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION, 1949-1950

PRESIDENT—Ernest E. Irons, Chicago.

PRESIDENT-ELECT—Elmer L. Henderson, Louisville, Ky.

VICE-PRESIDENT—James F. Norton, Jersey City, N. J.

SECRETARY AND GENERAL MANAGER—George F. Lull, Chicago.

ASSISTANT SECRETARY—Ernest B. Howard, Chicago.

TREASURER—J. J. Moore, Chicago.

SPEAKER, HOUSE OF DELEGATES—F. F. Borrell, Philadelphia.

VICE SPEAKER, HOUSE OF DELEGATES—James R. Reuling, Bayside, N. Y.

EDITOR—Austin Smith, Chicago.

BUSINESS MANAGER—Thomas R. Gardiner, Chicago.

BOARD OF TRUSTEES—John H. Fitzgibbon, Portland, Ore., 1950; James R. Miller, Hartford, Conn., 1950; Walter B. Martin, Norfolk, Va., 1951; Dwight H. Murray, Napa, Calif., 1952; R. J. McCormick, Toledo, Ohio, 1952; Edwin S. Hamilton, Kankakee, Ill., 1953; Gunnar Gundersen, LaCrosse, Wis., 1953; Louis H. Bauer, Chairman, Hempstead, N. Y., 1954; F. J. L. Blasingame, Wharton, Texas, 1954.

JUDICIAL COUNCIL—Louis A. Buie, Rochester, Minn., 1950; Walter F. Donaldson, Pittsburgh, 1951; H. L. Pearson Jr., Miami, Fla., 1952; Thomas F. Murdock, Meriden, Conn., 1953; Edward R. Cunniffe, Chairman, New York, 1954; George F. Lull, Chicago, Secretary.

COUNCIL ON MEDICAL EDUCATION AND HOSPITALS—Russell L. Haden, Crozet, Va., 1950; W. S. Middleton, Madison, Wis., 1951; H. G. Weiskotten, Chairman, Syracuse, N. Y., 1952; Victor Johnson, Rochester, Minn., 1953; W. L. Pressly, Des Moines, Iowa, 1954; Harvey B. Stone, Baltimore, 1955; Guy A. Caldwell, New Orleans, 1956; Donald G. Anderson, Secretary, Chicago.

COUNCIL ON SCIENTIFIC ASSEMBLY—Henry R. Viets, Chairman, Boston, 1950; L. W. Larson, Bismarck, N. D., 1951; Stanley P. Reimann, Philadelphia, 1952; Alphonse McMahon, St. Louis, 1953; Charles H. Phifer, Chicago, 1954; Carl A. Linche, Carrollton, Ohio, 1955; Michael E. DeBakey, Houston, Texas, 1956; and ex officio the President-Elect, the Editor and the Secretary of the Association.

COUNCIL ON MEDICAL SERVICE — Jesse D. Hamer, Phoenix, Ariz., 1950; James R. McVay, Chairman, Kansas City, Mo., 1950; H. R. Mulholland, Charlottesville, Va., 1951; Joseph D. McCarthy, Omaha, 1951; Ehrman Hess, Erie, Pa., 1952; Thomas A. McGoldrick, Brooklyn, 1952; R. L. Semenich, South Bend, Ind.; Ernest E. Irons, Chicago; Walter B. Martin, Norfolk, Va.; George F. Lull, Chicago; Thomas A. Hendricks, Secretary, Chicago.

COUNCIL ON PHARMACY AND CHEMISTRY (Standing Committee of Board of Trustees)—Torald Solmann, Chairman, Cleveland, 1951; Isaac Starr, Philadelphia, 1951; Joseph Hayman, Cleveland, 1951; R. M. K. Gosling, Chicago, 1952; S. W. Clausen, Rochester, N. Y., 1952; Paul R. Cannon, Chicago, 1952; W. C. Cutting, San Francisco, 1953; Joseph Stokes Jr., Philadelphia, 1953; C. Guy Lane, Boston, 1953; Carl A. Dragstedt, Chicago, 1953; James P. Leake, Washington, D. C., 1954; George W. Thorn, Boston, 1954; Henry K. Beecher, Boston, 1954; M. Fishbein, Chicago, 1955; G. W. McCoy, New Orleans, 1955; F. H. Long, Baltimore, 1955; E. M. Nelson, Washington, D. C., 1955; Robert T. Stormont, Secretary, Chicago.

COUNCIL ON PHYSICAL MEDICINE AND REHABILITATION (Standing Committee of Board of Trustees)—E. Garrey, Nashville, Tenn., 1951; W. W. Coblentz, Washington, D. C., 1951; W. J. Zeiter, Cleveland, 1951; Derrick Vail, Chicago, 1951; W. K. Grove, Milwaukee, 1951; A. C. Ivy, Chicago, 1952; Frank R. Ober, Boston, 1952; Frank D. Dickson, Kansas City, Mo., 1952; Howard A. Rusk, New York, 1953; Frank H. Krusen, Rochester, Minn., 1953; Shields Warren, Boston, 1953; Anthony C. Cipollaro, New York, 1954; M. A. Bowie, Swarthmore, Pa., 1954; G. M. Piersol, Philadelphia, 1954; Howard A. Carter, Secretary, Chicago.

COUNCIL ON FOODS AND NUTRITION (Standing Committee of Board of Trustees)—R. M. Wilder, Rochester, Minn., 1950; Howard M. Lewis, Ann Arbor, Mich., 1951; J. S. McLester, Chairman, Birmingham, Ala., 1951; Philip C. Jeans, Iowa City, 1952; C. A. Elvehjem, Madison, Wis., 1952; William J. Darby, Nashville, Tenn., 1953; George E. Cowgill, New Haven, Conn., 1953; C. S. Ladd, Washington, D. C., 1954; John R. Youmans, Nashville, Tenn., 1954; Charles S. Davidson, Boston, 1955; James R. Wilson, Secretary, Chicago.

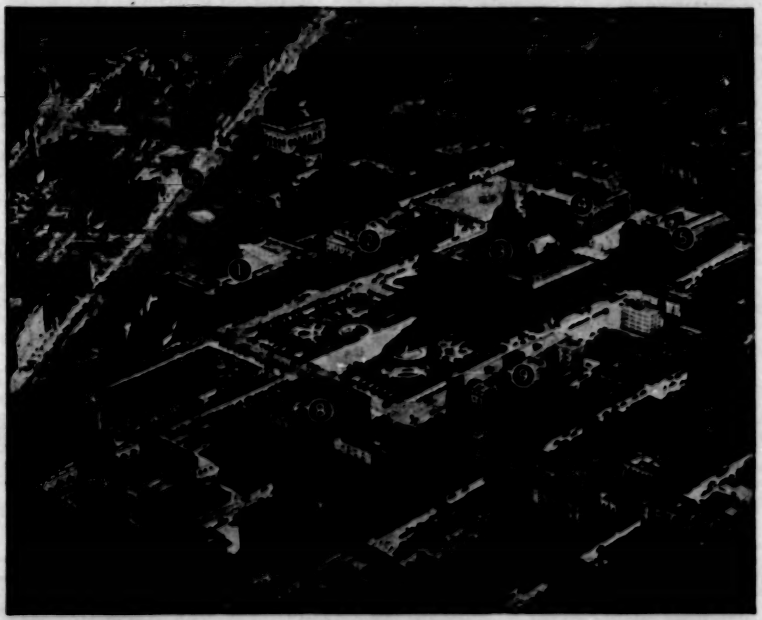
COUNCIL ON INDUSTRIAL HEALTH (Standing Committee of Board of Trustees)—L. D. Bristol, Harrisburg, Pa., 1951; Paul B. Magnuson, Washington, D. C., 1951; Robert A. Kehoe, Cincinnati, 1951; Harold A. Vonachen, Peoria, Ill., 1952; W. A. Sawyer, Rochester, Minn., 1953; James S. Simmons, Boston, 1952; Rutherford T. Johnstone, Los Angeles, 1953; A. J. Lanza, Chairman, New York, 1953; C. D. Selby, Detroit, 1953; Warren F. Draper, Washington, D. C., 1954; O. A. Sander, Milwaukee, 1954; Henry H. Kessler, Newark, N. J., 1954; E. J. McCormick, Toledo, Ohio, ex officio; C. M. Peterson, Secretary, Chicago.

COUNCIL ON NATIONAL EMERGENCY MEDICAL SERVICE (Standing Committee of Board of Trustees)—Harold S. Diehl, Minneapolis, 1950; Perrin H. Long, Baltimore, 1950; Harold C. Loeb, Omaha, 1951; James C. Sargent, Chairman, Milwaukee, 1952; Sanford Warren, Los Angeles, 1953; Herbert B. Wright, Cleveland, 1954; and ex officio the President and the Secretary of the Association; Robert M. Hall, Chicago, Secretary.

COMMITTEE ON SCIENTIFIC EXHIBIT—E. J. McCormick, Toledo, Ohio; Dwight H. Murray, Chairman, Napa, Calif.; F. J. L. Blasingame, Wharton, Texas; Thomas G. Hull, Director, Chicago. Advisory Committee — Howard F. Rost, Boston; Paul J. Hanalih, San Francisco; Ludvig Hektoen, Chicago; Urban Maes, New Orleans; H. J. Corper, Denver; James P. Leake, Washington, D. C.

SAN FRANCISCO — 1950

Long regarded as one of the more beautiful and romantic cities of the United States, San Francisco appeals to tourists and conventioners. It is situated on seven steep hills and overlooks San Francisco Bay. With adequate facilities for meetings, with restaurants and shopping facilities to excite the imagination, with adjacent areas of breath-taking beauty and with outstanding universities, this California city attracts young and old. The Golden Gate Bridge, cable cars, Chinatown, civic buildings, Fisherman's Wharf, Knob Hill, Telegraph Hill—these and other names are familiar to people throughout the country and provide an adequate source for discussion for all visitors long after their visits are ended. By train, by airplane, by bus and by car, visitors, businessmen and others add to the affairs of a city that is appropriately identified with the words "Golden Gate."



AIR VIEW OF SAN FRANCISCO'S CIVIC CENTER AND ENVIRONS

1. Auditorium
2. Board of Health Building
3. City Hall
4. Opera House
5. Veterans Building
6. Empire Hotel
7. Federal Building
8. Library
9. State Building
10. South Market Street

It is a city that may be explained by guides, but the average visitor will find plenty of interest without a guide. No matter where he goes or turns, he can see something new and exciting. Those who are excited by stories of the sea, the Orient or gold strikes will find in San Francisco much to revive the memory of their favorite stories or to suggest possibilities for new ones. Many fiction stories have been based on San Francisco. The hills, the water front, the fog—all have served as exciting elements in these stories. Alcatraz, which can be seen from so much of the city, is an equally familiar name. Those who like "after dark" life will not be disappointed in the many spots for the night lifers. Californian wines, Latin American dishes, seafood, Italian food, German and French dishes and many other culinary delights appease even the daintiest appetite.

San Francisco is a young city, having been so named in 1847, although prior to then the community was known as Yerba Buena. Nevertheless, the history of the earlier explorers, the gold rush, vigilance committees and the pony express and international intrigue have been such familiar subjects that many without thinking regard this city as much older. Industries, educational facilities, streets and boulevards contribute to San Francisco life. Within a remarkably short time this city assumed the leadership it now enjoys. It now is generally referred to as one of the most cosmopolitan cities in America.

As a medical center, San Francisco has international recognition. The scene of medical schools, the home of the headquarters of the California Medical Association and the site of fine hospitals and of an exceptional health department, it offers a strong appeal to medical researchers, educators and practitioners. The San Francisco County Medical Society is one of the pioneer medical organizations in California. The headquarters of this society is housed in a mansion which is a fine example of beauty. Its appeal to visitors is well known.

REGISTRATION

The Bureau of Registration will be located at the Grove St. entrance, Civic Auditorium. An information bureau will be operated in connection with the Bureau of Registration.

Who May Register

Only Fellows, Affiliate, Associate and Honorary Fellows and Invited Guests may take part in the work of the sections. Members may register for attendance at meetings. Fellows of the Scientific Assembly are those members who have, on the prescribed form, applied for Fellowship, subscribed to THE JOURNAL and paid their Fellowship dues for the current year. Fellowship dues and subscription to THE JOURNAL are included in the one annual payment of $12, which is the regular subscription price of THE JOURNAL. Fellowship cards are sent to all Fellows after payment of annual dues, and these cards should be presented at the registration window. Any who have not received cards for 1950 should secure them at once by writing to the American Medical Association, 535 North Dearborn Street, Chicago 10.

Members in Good Standing Eligible to Apply for Fellowship in the Association

Members in good standing in the American Medical Association are those members of component county medical societies and of constituent state and territorial medical associations whose names are officially reported for enrolment to the Secretary of the American Medical Association by the secretaries of the constituent medical associations and who have paid their membership dues to the American Medical Association, which this year are $25, to be paid through constituent state medical associations. All members in good standing may apply for Fellowship in the Scientific Assembly and, if they desire to do so, are urged to qualify as Fellows before leaving home.

Application forms may be had on request.

Members who do not qualify as Fellows will be permitted to register for attending meetings and for visiting exhibits.

Register Early

Members and Fellows living in San Francisco, as well as all other physicians who are in San Francisco on Monday and Tuesday, should register as early as possible.

The names and local addresses of those who register will be included in the issue of the *Daily Bulletin* appearing the next day, and this will enable visiting physicians to find friends who have registered.

Suggestions That Will Facilitate Registration of Fellows

Fellows should fill out completely the spaces on both sections of the front of the registration card. Physicians who desire to qualify as Fellows should fill out completely the spaces on both sections of the front of the registration card and sign the application on the back. These cards will be found on the tables.

Entries on the registration card should be written plainly, or printed, as the cards are given to the printer to use as "copy" for the *Daily Bulletin*, which appears on Tuesday, Wednesday, Thursday and Friday mornings during the week of the session.

Fellows who have their pocket cards with them can be registered with little or no delay. They should present the filled out registration card, together with the pocket card, at one of the windows marked "Registration by Pocket Card." There the clerk will compare the two cards, stamp the pocket card and return it and supply the Fellow with a badge and a copy of the official program.

As previously stated, it will assist in the registration if those who desire to qualify as Fellows will file their applications and qualify as Fellows by writing directly to the American Medical Association, 535 North Dearborn Street, Chicago 10, so that their Fellowship may be entered not later than June 1. Any applications that are received later than June 1 will be given prompt attention, but the Fellowship pocket card may not reach the applicant in time for him to register at the San Francisco session.

It will be possible for members of the organization to qualify as Fellows at San Francisco. In order to do this, applicants for Fellowship will be required to fill out both sections of the front of the registration card and to sign the formal application that is printed on the reverse side of the card. It is suggested that those members who apply for Fellowship at San Francisco bring with them their state membership cards for the year 1950. The state membership card should be presented along with the filled in registration card at the window in the booth marked "Applicants for Fellowship and Invited Guests."

Registration for General Officers and Delegates at the Palace Hotel

General officers of the American Medical Association and members of the House of Delegates may register for the Scientific Assembly outside the Concert Room of the Palace Hotel. This arrangement is made for the convenience of members of the House of Delegates, which will convene on Monday morning at 10 o'clock in the Concert Room of the Palace Hotel. Delegates are requested to register for the Scientific Assembly before presenting credentials to the Reference Committee on Credentials of the House of Delegates. Registration of delegates for the Scientific Assembly will begin at 8 o'clock Monday morning, June 26, and delegates are urged to register early so that all members of the House of Delegates may be seated in time for the opening session of the House. If any delegate is in San Francisco on Sunday, June 25, he may register for the Scientific Assembly at the Concert Room of the Palace Hotel.

Registration for Lay Executive Secretaries

Lay executive secretaries of component and constituent associations may register any time Saturday or Sunday, June 24 or 25, or any time after 12 noon Monday, June 26, during the week of the session at the House of Delegates registration desk in the Palace Hotel.

TRANSPORTATION

It is suggested that those Fellows who contemplate traveling to San Francisco to attend the annual session of the Association secure information concerning railroad and airplane travel directly from their local ticket agents, who are in a position to give them information regarding train or plane schedules and fares.

Chicago Medical Society's Special Transportation to San Francisco Session

The Special Transportation Committee of the Chicago Medical Society offers the following arrangements for members and guests:

Air Transportation: United Air Lines, special flight leaving Chicago day before opening of session and returning closing day.

Rail Transportation (three routes):

1. Great Northern, (northern route).
2. Northwestern, Southern Pacific and Union Pacific (direct route).
3. Santa Fe (southern route).

This plan of transportation is presented in order to offer a wide selection of routes. The railways are prepared to arrange for individual stopovers and side trips, outbound or inbound. The United Air Lines will serve those who wish to spend the minimum amount of time in travel.

Reservations by air may be made by application to the office of the Chicago Medical Society, 30 North Michigan Avenue, Chicago 2. Railway reservations may be made directly with the companies.

United Air Lines

Special Mainliner 300 (DC-6) Flight is sponsored by the Chicago Medical Society. Three Mainliner 300 nonstop flights are operated daily from Chicago to San Francisco and return in addition to a one-stop, a three-stop and a four-stop flight. Consult the United Air Lines, 35 E. Monroe St., Chicago, concerning its family plan, whereby on certain days wives and children, twelve to twenty-one years of age, travel at half fare. The United Air Lines office will give detailed information to assist in the choice of routes to and from San Francisco and on flights to Honolulu, Hawaii, after the closing of the session.

MEETING PLACES

HOUSE OF DELEGATES: Concert Room, Palace Hotel, Market at New Montgomery Street.

INAUGURAL MEETING: Gold Ballroom, Palace Hotel, Market at New Montgomery Street.

GENERAL HEADQUARTERS, REGISTRATION BUREAU, SCIENTIFIC EXHIBIT, TECHNICAL EXHIBITS AND INFORMATION BUREAU: Civic Auditorium, Grove Street entrance.

SECTIONS OF SCIENTIFIC ASSEMBLY

ANESTHESIOLOGY: Hall 2, Masonic Temple, Van Ness Avenue and Market Street.

DERMATOLOGY AND SYPHILOLOGY: Banquet Room, California Hall, 625 Polk Street.

DISEASES OF THE CHEST: Hall 1, Masonic Temple, Van Ness Avenue and Market Street.

EXPERIMENTAL MEDICINE AND THERAPEUTICS: Boys and Girls Gymnasium, High School of Commerce, Franklin and Hayes Streets.

GASTRO-ENTEROLOGY AND PROCTOLOGY: Auditorium, Masonic Temple, Van Ness Avenue and Market Street.

GENERAL PRACTICE: Boys and Girls Gymnasium, High School of Commerce, Franklin and Hayes Streets.

INTERNAL MEDICINE: Auditorium, High School of Commerce, Franklin and Hayes Streets.

LARYNGOLOGY, OTOLOGY AND RHINOLOGY: Auditorium, California Hall, 625 Polk Street.

MISCELLANEOUS TOPICS, SESSIONS ON MILITARY MEDICINE AND SURGERY: White Room, Masonic Temple, Van Ness Avenue and Market Street.

NERVOUS AND MENTAL DISEASES: Black Room, Masonic Temple, Van Ness Avenue and Market Street.

OBSTETRICS AND GYNECOLOGY: Auditorium, Veterans War Memorial, Civic Center.

OPHTHALMOLOGY: Auditorium, California Hall, 625 Polk Street.

ORTHOPEDIC SURGERY: Black Room, Masonic Temple, Van Ness Avenue and Market Street.

PATHOLOGY AND PHYSIOLOGY: Auditorium, Masonic Temple, Van Ness Avenue and Market Street.

PEDIATRICS: Auditorium, High School of Commerce, Franklin and Hayes Streets.

PHYSICAL MEDICINE AND REHABILITATION: Hall 1, Masonic Temple, Van Ness Avenue and Market Street.

PREVENTIVE AND INDUSTRIAL MEDICINE AND PUBLIC HEALTH: White Room, Masonic Temple, Van Ness Avenue and Market Street.

RADIOLOGY: Hall 2, Masonic Temple, Van Ness Avenue and Market Street.

SURGERY, GENERAL AND ABDOMINAL: Auditorium, Veterans War Memorial, Civic Center.

UROLOGY: Banquet Room, California Hall, 625 Polk Street

CIVIC AUDITORIUM—REGISTRATION AND THE EXHIBITS WILL BE HELD HERE

LOCAL COMMITTEE ON ARRANGEMENTS

General Committee

JOHN W. CLINE, Co-Chairman
ROBERTSON WARD, Co-Chairman
WILLIAM L. BENDER, Vice Chairman
ALLEN T. HINMAN, Vice Chairman
IVAN C. HERON, Vice Chairman
MR. FRANK J. KIHM, Secretary

GEORGE F. ADAMS
RICHARD H. BARR
MELVIN C. BOLENDER
FREDERICK W. BORDEN
CHARLES BROWN
DONALD CASS
Z. B. COBLENTZ
FREDERICK C. CORDES
ALBERT D. DAVIS
G. DANIEL DELPRAT
EPHRAIM P. ENGLEMAN
ROBERTO F. ESCAMILLA
MARIUS ANDRE FRANCOZ
L. HENRY GARLAND
JOHN W. GREEN
EMILE F. HOLMAN
RALPH D. HOWE
ALSON R. KILGORE
R. STANLEY KNEESHAW
JOHN J. LOUTZENHEISER
SALVATORE P. LUCIA
DONALD D. LUM
H. GORDON MACLEAN
JOHN J. MOHRMAN
M. LAURENCE MONTGOMERY
JAMES W. MORGAN
EDMUND J. MORRISSEY
DWIGHT H. MURRAY
R. J. O'DONNELL
HARTZELL H. RAY
T. ERIC REYNOLDS
LOUIS L. ROBINSON
WILLIAM H. RUSTAD
SIDNEY J. SHIFMAN
DWIGHT L. WILBUR
FORREST M. WILLETT

Subcommittee on Sections and Section Work

ANESTHESIOLOGY:
HARRY D. LAPP, Chairman
JOHN E. CANN — FRANCIS J. MURPHY

DERMATOLOGY AND SYPHILOLOGY:
GRANT MORROW, Chairman
PAUL FASAL — CHARLES A. SHUMATE

EXPERIMENTAL MEDICINE AND THERAPEUTICS:
MORRIS E. DAILEY, Chairman
LOWELL A. RANTZ — GERSON R. BISKIND

GASTRO-ENTEROLOGY AND PROCTOLOGY:
RUSSELL R. KLEIN, Chairman
ROGER G. SIMPSON — THEODORE L. ALTHAUSEN

GENERAL PRACTICE:
ALEXANDER F. FRASER, Chairman
VICTOR B. BONFILIO JR. — ALICE C. BEPLER

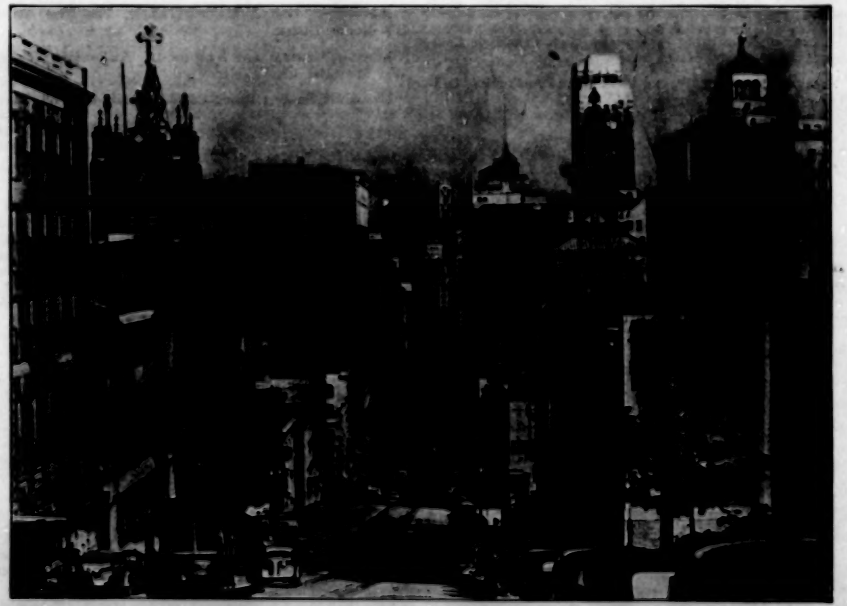
INTERNAL MEDICINE:
CHARLES F. SWEIGERT, Chairman
JAMES H. THOMPSON — JAMES J. MCGINNIS

LARYNGOLOGY, OTOLOGY AND RHINOLOGY:
CLARENCE B. COWAN, Chairman
FRANCIS A. SOOY — SHIRLEY H. BARON

NERVOUS AND MENTAL DISEASES:
LEON J. WHITSELL, Chairman
ROBERT B. AIRD — FRANK W. LUSIGNAN

OBSTETRICS AND GYNECOLOGY:
EARLE M. MARSH, Chairman
DONALD W. DECARLE — GERTRUDE F. JONES

OPHTHALMOLOGY:
ROBERT N. SHAFFER, Chairman
AVERY M. HICKS — MAX FINE



CABLE CAR ON SAN FRANCISCO HILL AMIDST CHINESE ARCHITECTURE

ORTHOPEDIC SURGERY:
HELEN HAGEY, Chairman
FRANCIS J. COX — GERALD G. GILL

PATHOLOGY AND PHYSIOLOGY:
GEORGE A. WALKER, Chairman
ALVIN J. COX JR. — HENRY D. MOON

PEDIATRICS:
HULDAH E. THELANDER, Chairman
JOHN J. MILLER JR. — HILTON B. ATHERTON

PREVENTIVE AND INDUSTRIAL MEDICINE AND PUBLIC HEALTH:
J. C. GEIGER, Chairman
WILLIAM P. SHEPARD — CHARLES EDWARD SMITH

RADIOLOGY:
EARL R. MILLER, Chairman
GORDON G. KING — HENRY S. KAPLAN

SURGERY, GENERAL AND ABDOMINAL:
HORACE J. MCCORKLE, Chairman
FRANK L. A. GERBODE — JACOB O. SMITH

UROLOGY:
FRANK HINMAN JR., Chairman
THOMAS L. SCHULTE — DONALD R. SMITH

Subcommittee on Inaugural Meeting

ALBERT D. DAVIS, Chairman

EPHRAIM P. ENGLEMAN, Vice Chairman

REA E. ASHLEY
ELMER C. BRICCA
BARTON E. BRIGGS
DANIEL N. BUCKLEY
THOMAS P. BURTON
HOWARD A. BROWN
LEONID S. CHERNEY
ROY B. COHN
NORMAN W. CULINER
MORRIS J. GROPER
JOHN F. HUFFMAN
AUBREY G. RAWLINS
FREDERICK H. RODENBAUGH
RICHARD R. WEBSTER

Subcommittee on Registration

RICHARD H. BARR, Chairman

ROBERT W. AANESTAD
SAMUEL AIKEN
CLAUDE P. CALLAWAY
W. DAYTON CLARK
LAWRENCE R. CUSTER
DONALD A. DALLAS
NORMAN N. EPSTEIN
ANTONIO J. FRANZI
DON G. GARDNER
THOMAS G. HALL
BERNARD KAUFMAN JR.
GEORGE T. LANAHAN
GERALD B. MACCARTHY
JOHN M. NAGLE

Subcommittee on Scientific Exhibit

EMILE F. HOLMAN, Chairman

H. GLENN BELL
HARRY M. BLACKFIELD
ARTHUR L. BLOOMFIELD
CRAWFORD C. BOST
KARL M. BOWMAN
LEROY H. BRIGGS
LOREN R. CHANDLER
WILLIAM C. DEAMER
ERNEST H. FALCONER
LEON GOLDMAN
GEORGE S. JOHNSON
WILLIAM J. KERR
ALSON R. KILGORE
DONALD E. KING
BERTRAM V. LOW-BEER
CARLETON MATHEWSON JR.
CHARLES E. MCLENNAN
LEWIS F. MORRISON
HOWARD C. NAFFZIGER
ROBERT R. NEWELL
FREDERICK L. REICHERT
EDWARD B. SHAW
ROBERT S. STONE
HERBERT F. TRAUT

HARRY A. WYCKOFF

Subcommittee on Hotels

WILLIAM H. RUSTAD, Chairman

JOSEPH J. ALBRECHT
ALEXANDER G. BARTLETT
STANLEY D. BURTON
CHARLES S. CAPP
ROBERT C. COMBS
JULIAN S. DAVIS
H. L. GARTSHORE
MERTIN D. HATCH
S. BARRE PAUL
JOHN B. SCHAUPP
NATHAN SOLTER
MORRELL E. VECKI

WILLIAM F. WAGNER

Subcommittee on Publicity

ZACH B. COBLENTZ, Chairman

WILLIAM L. BENDER
DONALD CASS
MR. JOHN HUNTON
MR. FRANK J. KIHM
HAROLD H. LINDNER
MISS MARY V. MULCAHEY
ANTHONY J. J. ROURKE
MR. ROLLEN WATERSON
EDGAR A. W. WAYBURN
DWIGHT L. WILBUR

Subcommittee on Finance

G. DANIEL DELPRAT, Chairman

DOROTHY W. ATKINSON
PHILLIS BOURNE
EDMOND B. BUTLER
EVERETT CARLSON
FRED FIRESTONE
R. DUFFICY FRIEDLANDER
THOMAS M. FULLENLOVE
CLAUDIUS Y. GATES
ELLIS D. HARMON
FRANKLIN I. HARRIS
L. D. HOWARD JR.
GEORGE T. LECLERCQ
J. MINTON MEHERIN
DANIEL G. MORTON
AGNES G. PLATE
FRANCIS J. ROCHEX
WILLIAM L. ROGERS
RUSSELL F. RYPINS
MAURICE SOKOLOW
RALPH SOTO-HALL
JOHN A. SPENCER
VANCE M. STRANGE
VINKO V. SUGLIAN
EDWARD TOPHAM
JOSEPH VISALLI
THADDEUS J. WHALEN
HENRY B. WOO
DAVID A. WOOD
ALBERT YOUNG
REUBEN H. ZUMWALT

Subcommittee on Transportation

GEORGE F. ADAMS, Chairman

MILTON M. HARTMAN, Vice Chairman

AUGUST A. ANTIPA
WALTER BECKH
BOSTON M. DAY
LEROY K. GAY
PAUL P. HEARN
WILLIAM C. KUZELL
HAROLD H. MARQUIS
WILLIAM A. NEWSOM
PHILLIP L. PILLSBURY
RICHARD H. REID
BEN SHENSON
HAROLD G. WATSON

Subcommittee on Television

BERT L. HALTER, Chairman

H. GLENN BELL
EDMUND D. BUTLER
EVERETT CARLSON
G. DANIEL DELPRAT
HOWARD M. ENGLE
FRANKLIN I. HARRIS
EMILE F. HOLMAN
ALSON R. KILGORE
RAY H. KISTLER
COLIN C. MCRAE
THOMAS F. MULLEN
GEORGE W. PIERCE

WILLIAM L. ROGERS

Subcommittee on Information

FORREST M. WILLETT, Chairman

JAMES CLIFFORD LONG, Vice Chairman

JOHN ALDEN
CHARLES E. H. BATES
WILLIAM A. CARROLL
GORDON G. KING
GRANT LEVIN
ERNEST P. MANNHEIM
CLARENCE NELSON
JAMES OWNBY JR.
LLOYD L. PENN
AUGUST REICH
MAX SCHECK
OTTO R. WALLERSTEIN

Subcommittee on Entertainment

ROBERTO F. ESCAMILLA, Chairman

FREDERICK C. CORDES, Vice Chairman

JESSE L. CARR
ALBERT D. DAVIS
EPHRAIM P. ENGLEMAN
MARIUS A. FRANCOZ
JOHN J. LOUTZENHEISER
SALVATORE P. LUCIA
JAMES W. MORGAN
EDMUND J. MORRISSEY
GERALD B. O'CONNOR
ROBERT P. THOMPSON

Subcommittee on President's Reception

JOHN J. LOUTZENHEISER, Chairman

EDMUND J. MORRISSEY, Vice Chairman

ROBERT C. BERWICK
ELDRIDGE J. BEST
DONALD A. CARSON
SIGURD VON CHRISTIERSON
LEONARD G. DOBSON
JOHN H. GOLDEN
FREDERICK L. HEWES
A. A. MAXIMOVA-KULAEV
EMMET L. RIXFORD
HENRY L. SILVANI
ROBERT L. SMITH
PAUL S. WYNE

Subcommittee on Dinner for House of Delegates

MARIUS A. FRANCOZ, Chairman

BRADFORD F. DEARING
MARTIN W. DEBENHEM
RANDOLPH G. FLOOD
GEORGE T. LECLERCQ
SALVATORE P. LUCIA
PHILLIP R. WESTDAHL

Subcommittee on Wines for House of Delegates Dinner

SALVATORE P. LUCIA, Chairman

H. GLENN BELL
ANTHONY B. DIEPENBROCK
MARIUS A. FRANCOZ
CHARLES P. MATHE
RALPH E. SCOVEL
JOHN PHILLIP STRICKLER
WILLIAM W. WASHBURN

Subcommittee on Golf

EDWARD CAMPION, Chairman

JOHN E. BOHM
JAMES EAVES
HARRY HENSLER
THOMAS G. LAWLER
JAMES W. MORGAN
WALTER F. SCHALLER
EDWARD F. STADTHERR
ROBERT P. THOMPSON
PAUL S. WYNE

Subcommittee on Decorations

THOMAS F. MULLEN, Chairman

V. LORAL BERGERON, Vice Chairman

PHILLIP H. ARNET
RENE BINE JR.
FREDERICK S. BRACKMAN
FRANCIS L. CHAMBERLAIN
VINCENT H. GRECO
FREDERICK S. HOWARD
CLAYTON D. MOTZ
ALICE POTTER
ELLSWORTH F. QUINLAN
GEORGE B. ROBSON
LEWIS SPECKER
GARDNER S. STOUT

ENTERTAINMENT

Inaugural Meeting

The Inaugural Meeting will be held in the Gold Ballroom of the Palace Hotel Tuesday, June 27. The audience will assemble at 5:30 p. m., and the President's address will be broadcast at 6:00 p. m. Details will be published in the Official Program.

Luncheons, Dinners and Meetings of Fraternity, Alumni and Other Organizations

ALPHA EPSILON IOTA, Luncheon, Wednesday, June 28. Other information to be announced later.

ALPHA KAPPA KAPPA, Luncheon, Whitcomb Hotel, Crystal Room, Wednesday, June 28, 12:30 p. m.

ALPHA OMEGA ALPHA, Dinner, Thursday, June 29, 6:30 p. m., Comstock Room, Palace Hotel.

ALUMNI ASSOCIATION OF THE LONG ISLAND COLLEGE OF MEDICINE, Cocktail Party, Wednesday, June 28, 5 p. m. Free to members and guests.

ALUMNI ASSOCIATION OF UNIVERSITY OF CHICAGO SCHOOL OF MEDICINE, Luncheon, Wednesday, June 28, 1 p. m., St. Moritz Restaurant, 530 Broadway. Reservations may be made through Dr. A. T. Haerem, 500 Arguello St., Redwood City, Calif.

ALUMNI OF THE MEDICAL SCHOOL OF THE UNIVERSITY OF PITTSBURGH, Luncheon, Wednesday, June 28, 12 noon. Reservations may be secured from Dr. Rutherford T. Johnstone, 520 W. Seventh St., Los Angeles 14.

ASSOCIATION OF ALUMNI OF COLLEGE OF PHYSICIANS AND SURGEONS OF COLUMBIA UNIVERSITY, Dinner, Wednesday, June 28, 7 p. m. Tickets obtainable from Dr. P. J. Lipsett, 521 14th St., Oakland 12, Calif.

COLLEGE OF MEDICAL EVANGELISTS, Dinner, Furniture Mart, Wednesday, June 28, 6 p. m.

CORNELL ALUMNI MEDICAL ASSOCIATION, Luncheon, Alexander Hamilton Hotel, Emerald Room, Tuesday, June 27.

CREIGHTON UNIVERSITY MEDICAL ALUMNI ASSOCIATION, Dinner-dance, Mark Hopkins Hotel, Room of the Dons, Wednesday, June 28, 7 p. m. Tickets obtainable from Dr. J. Clifford Long, 450 Sutter St., San Francisco.

FEDERATION OF CATHOLIC PHYSICIANS' GUILDS, Luncheon, Fairmont Hotel, Tonga Room, Wednesday, June 28, 12:30 p. m.

GEORGE WASHINGTON UNIVERSITY ALUMNI ASSOCIATION, Dinner, Fairmont Hotel, Red Room, Thursday, June 29, 7 p. m. Wives cordially invited. Tickets available from Dr. Angelo M. May, 50 Sea Cliff Avenue, San Francisco.

HARVARD MEDICAL ALUMNI ASSOCIATION, Dinner, Palace Hotel, Wednesday, June 28, 6:30 p. m.

JEFFERSON MEDICAL COLLEGE ALUMNI ASSOCIATION, Dinner, St. Francis Hotel, Wednesday, June 28, 6:30 p. m.

JOHNS HOPKINS MEDICAL ALUMNI ASSOCIATION, Banquet, Palace Hotel, Comstock Room, Wednesday, June 28, 6:30 p. m., in celebration of Welch Centenary.

LOYOLA UNIVERSITY ALUMNI ASSOCIATION, Dinner, Sir Francis Drake Hotel, Wednesday, June 28, 6 p. m.

MCGILL GRADUATE SOCIETY OF NORTHERN CALIFORNIA, Dinner, University Club, Wednesday, June 28, 6:30 p. m. Tickets obtainable from Dr. William Fitzhugh Jr., 384 Post St., San Francisco.

MEDICAL ALUMNI SOCIETY OF THE UNIVERSITY OF PENNSYLVANIA, Dinner, Fairmont Hotel, Wednesday, June 28, 7:30 p. m. Cocktails, 6:30 p. m. Guests welcome.

NORTHWESTERN UNIVERSITY ALUMNI ASSOCIATION, Cocktails, 6:30 p. m., and Dinner, 8 p.m., Fairmont Hotel, Garden Room, Wednesday, June 28.

NU SIGMA NU, Luncheon, Hotel Whitcomb, Corinthian Room, Wednesday, June 28, 12 noon. Ladies escorted by members welcome.

PHI BETA PI, Luncheon, Mark Hopkins Hotel, Room of the Dons, Wednesday, June 28, 12:30 p. m. Tickets obtainable from Dr. William H. Rustad, 490 Post St., San Francisco 2.

PHI CHI, Luncheon, Fairmont Hotel, Wednesday, June 28, 12 noon. Tickets obtainable from Paul W. Smith, 435 Judson Ave., San Francisco.

PHI DELTA EPSILON, Dinner Dance, Fairmont Hotel, Tuesday, June 27, 7 p. m.

PHI LAMBDA KAPPA, Luncheon, Palace Hotel, French Room, Wednesday, June 28, 12 noon. Tickets obtainable from Dr. William Novick, Secretary, 621 So. Fairfax, Los Angeles.

PHI RHO SIGMA, Luncheon, Hotel Fairmont, Garden Room, Wednesday, June 28, 12 noon. Tickets obtainable from Dr. George H. Kress, 131 South Rampart Blvd., Los Angeles 4.

THETA KAPPA PSI, Luncheon, Fairmont Hotel, Hunt Room, Wednesday, June 28, 12 noon. Tickets obtainable from Dr. Joseph T. Roberts, Veterans Hospital, Buffalo.

TUFTS MEDICAL ALUMNI ASSOCIATION, Dinner, Rickey's Town House, Wednesday, June 28, 6 p. m.

UNIVERSITY OF LOUISVILLE ALUMNI, Dinner, St. Francis Hotel, Wednesday, June 28, 6:30 p. m. Advance reservations

necessary. Tickets obtainable from Dr. Reagan South, 1419 32d Ave., San Francisco.

Women Physicians' Entertainment

JUNE 25, 1950

San Francisco Bay Cruise, leaving Pier 43½, Fisherman's Wharf at 12:30 p. m., returning at 2 p. m. $1.25 per person.

JUNE 25, 1950

Cocktail Party, at Marine Club Building, 609 Sutter Street, corner of Mason, 4 to 6 p. m. Guests of Women Physicians of San Francisco.

JUNE 26, 1950

Chinese Dinner, Hang Far Low Restaurant, 723 Grant Avenue. Guests of Women Physicians of San Francisco.

WOMAN'S AUXILIARY

Information

It is San Francisco's great pleasure to extend a most cordial invitation to the members of the Woman's Auxiliary to the American Medical Association, and to the wives and guests of physicians attending the annual session of the American Medical Association, to be present at the general sessions of the Woman's Auxiliary and to participate in all its social events.

The Auxiliary headquarters will be at the Fairmont Hotel where all the meetings and most of the social affairs will be held.

Please register promptly and obtain your badge, program and tickets.

Members of the Hospitality Committee will be at the hotel to assist in any way they can. It is our sincere hope that your visit will be most profitable and very pleasant.

HOME OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY

Registration Hours

Sunday, 12 m. to 4 p. m.
Monday, 9 a. m. to 4 p. m.
Tuesday, 9 a. m. to 4 p. m.
Wednesday, 9 a. m. to 4 p. m.
Thursday, 9 a. m. to 12 m.

Acknowledgments

The Woman's Auxiliary to the American Medical Association is pleased to acknowledge the courtesy and generosity of Wyeth Incorporated, who provided this program for the annual meeting. For the many courtesies extended to the chairmen of the various committees in preparation for the convention, detailed acknowledgment will be published later.

The Convention Chairman wishes to express her sincere thanks to the California Medical Association, the San Francisco County Medical Association, the Woman's Auxiliary to the California Medical Association, and to the National Auxiliary President, the Executive Secretary, and to the chairmen, co-chairmen and convention committee members for their assistance in preparing for the twenty-seventh annual meeting.

MRS. CLIFFORD LONG,
General Chairman,
Committee on Convention Arrangements.

Preconvention Schedule

SUNDAY, JUNE 25

12 noon to 4 p. m. — Registration: Lobby, Fairmont Hotel.

The members of the Hospitality Committee will welcome members and guests of the Woman's Auxiliary.

COMMITTEE MEETINGS

1 p. m. — Nominating Committee in Room 136 Mezzanine Floor).
Mrs. Luther H. Kice, Chairman.

4 p. m. — Revisions Committee in The Auxiliary President's Suite.
Mrs. Eustace A. Allen, Chairman.

8 p. m. — Finance Committee in The Auxiliary President's Suite.
Mrs. Scott C. Applewhite, Chairman.

MONDAY, JUNE 26

9:30 a. m. — Board of Directors in The Auxiliary President's Suite.
Mrs. David B. Allman, President, presiding.

12:30 p. m. — Luncheon for Board of Directors in Garden Room.
Mrs. David B. Allman, President, presiding.

ROUND TABLE DISCUSSIONS

GREEN ROOM, HOTEL FAIRMONT

9-10 a. m. — Hygeia. Mrs. Herbert Johnson, Chairman.
10-11 a. m. — Legislation. Mrs. Bruce Schaefer, Chairman.
11-12:30 p. m. — Public Relations. Mrs. Paul Craig, Chairman.
2-3 p. m. — Program. Mrs. Leo J. Schaefer, Chairman.

4 p. m. to 6 p. m. — A Tea honoring Mrs. David B. Allman, President, and Mrs. Arthur A. Herold, President-Elect, will be given for the members of the National Board of Directors, the state presidents and presidents-elect and guests in Regency Room, Huntington Hotel. Tickets $2.25.

All doctors' wives are cordially invited.

Hostesses: The Woman's Auxiliary to the California Medical Association.

SIGHTSEEING TRIPS

12:30 p. m. — Trip around San Francisco (Buses will depart from and return to Fairmont Hotel). $2.59 (tax included).

8 p. m. — Chinatown and Fisherman's Wharf. $1.90 (tax included).

Convention Program

9 a. m. TUESDAY, JUNE 27

Formal opening of the Twenty-Seventh Annual Meeting of the Woman's Auxiliary to the American Medical Association, Gold Room, Hotel Fairmont.

Mrs. David B. Allman, President, Presiding

Invocation. Reverend T. Christie Innes, Pastor, Calvary Presbyterian Church.

Pledge of Loyalty to the Woman's Auxiliary to the American Medical Association. Mrs. Luther H. Kice, Immediate Past President, Woman's Auxiliary.

Greetings. Honorable Therese Meilde, J.D., Judge of Superior Court, San Francisco; William L. Bender, M.D., President, San Francisco County Medical Society.

Address of Welcome. Mrs. William R. Molony, Jr., President Woman's Auxiliary to the California Medical Association.

Response. Mrs. Truman Caylor.

Presentation of Convention Chairman. Mrs. Clifford Long.

Introductions. Mrs. David B. Allman, President.

Presentation of President-Elect, Mrs. Arthur A. Herold.

Roll Call. Mrs. Harry M. Gilkey.

Minutes of the 20th Annual Meeting. Mrs. Harry M. Gilkey.

Rules of Order. Mrs. Carl N. Neupert.

Credentials and Registration. Mrs. Norman Epstein.

Address of the President. Mrs. David B. Allman.

REPORTS OF OFFICERS

President-Elect. Mrs. Arthur A. Herold.

First Vice President. Mrs. Harold F. Wahlquist.

Second Vice President. Mrs. Henry Garnjobst.

Third Vice President. Mrs. W. E. Hoffman.

Fourth Vice President. Mrs. Mason G. Lawson.

Treasurer. Mrs. George Turner.
(including report of the auditor)

Constitutional Secretary. Mrs. Harry M. Gilkey.

12:30 p. m.

Luncheon in honor of the Past Presidents of the Woman's Auxiliary to the American Medical Association, Venetian Room, Hotel Fairmont. Tickets $3 (tax and gratuity included).

Mrs. David B. Allman, President, presiding.

Guest Speaker: Dr. Ernest B. Howard, Assistant Secretary, American Medical Association.

2 p. m.

Report of the Board of Directors. Mrs. David B. Allman.

Reports of Chairmen of Standing Committees:

Finance. Mrs. Scott C. Applewhite.

Hygeia. Mrs. Herbert W. Johnson.

Legislation. Mrs. Bruce Schaefer.

Organization. Mrs. Harold F. Wahlquist.

Program. Mrs. Leo J. Schaefer.

Publications. Mrs. James P. Simonds.

Public Relations. Mrs. Paul C. Craig.

Revisions. Mrs. Eustace A. Allen.

Report of Special Committee:

Reference. Mrs. Rollo K. Packard.

Report of the Historian. Mrs. Jesse D. Hamer.

Report of Central Office and Bulletin Circulation. Miss Margaret Wolfe.

Report of the Nominating Committee (first reading). Mrs. Luther H. Kice, Chairman.

Election of the 1951 Nominating Committee.

5:30 p. m.

Inaugural Meeting of the American Medical Association, Gold Ballroom, Palace Hotel.

Members of the Woman's Auxiliary and guests are welcome.

---

9 a. m. WEDNESDAY, JUNE 28

General Session of the Woman's Auxiliary to the American Medical Association, Venetian Room, Fairmont Hotel.

Mrs. David B. Allman, President, Presiding

Minutes. Mrs. Harry M. Gilkey.

Announcements. Mrs. Clifford Long.

Credentials and Registration. Mrs. Norman Epstein.

In Memoriam. Mrs. Ralph B. Eusden.

Resolutions. Mrs. Louis K. Hundley.

Reports of State Presidents

12:30 p. m.

Annual Luncheon in honor of Mrs. David B. Allman, President, and Mrs. Arthur A. Herold, President-Elect, Peacock Court, Mark Hopkins Hotel. Tickets $3.50 (tax and gratuity included). Mrs. Jesse D. Hamer, Past President, Presiding.

Guests of Honor: Dr. Ernest E. Irons, Past President, American Medical Association; Dr. Elmer L. Henderson, President; Dr. Louis H. Bauer, Chairman of the Board of Trustees; Dr. J. J. Moore, Treasurer; Dr. George F. Lull, Secretary and General Manager, and the members of the Advisory Council to the Woman's Auxiliary.

---

3 p. m. AFTERNOON SESSION

Unfinished Business.

New Business.

Report of the Nominating Committee. Mrs. Luther H. Kice.

Election of Officers.

Installation of Officers and Presentation of President's Pin. Mrs. Rollo K. Packard.

Inaugural Address. Mrs. Arthur A. Herold.

Courtesy Resolutions. Mrs. F. Justin McCarthy.

Minutes. Mrs. Harry M. Gilkey.

Adjournment.

4:00 p. m.

Meeting of the Board of Directors, Venetian Room. Mrs. Arthur A. Herold, presiding.

9:30 a. m. THURSDAY, JUNE 29

Conference of National President, President-Elect and Chairmen of Standing Committees and State Presidents and Presidents-Elect, Green Room. Mrs. Arthur A. Herold, presiding.

7 p. m.

Annual Dinner of the Woman's Auxiliary to the American Medical Association for members, husbands and guests. Tickets $5 (including tax and gratuities). Gold Room. Dress optional. Mrs. Clifford Long, presiding.

9 p. m.

Reception and Ball in honor of the President of the American Medical Association, Gold Ballroom, Palace Hotel.

12:30 p. m. SIGHTSEEING TRIPS

(a) Across Golden Gate Bridge and into Marin County to Muir Woods. (Buses will depart from and return to Hotel Fairmont.) Tickets $3.16 (tax included).

(b) Trip to Stanford University. Tickets $4.04 (tax included).

GOLF AND SWIMMING

Arrangements have been made for golf and swimming for members of the Woman's Auxiliary and guests.

Golf:

Monday, June 26, Presidio Golf Club.

Thursday, June 29, Green fee $2.

Call Mrs. Loren R. Chandler, Fi. 6-5313

Swimming:

Pool of the Woman's Athletic Club. Guest card for all departments may be secured. Fee $1.

Call Mrs. Edmund Morrissey, Fi. 6-0284

Local Committee on Convention Arrangements

General Chairman
Mrs. Clifford Long

Honorary Chairmen
Woman's Auxiliary to the California Medical Association
Mrs. William R. Molony Jr., President
Mrs. Stanley Truman, President-Elect
Mrs. Raymond T. Wayland, Past President

Vice Chairmen

Mrs. William Newman — Mrs. Harry Hund
Mrs. Norman D. Morgan — Mrs. Albert Boles

Credentials and Registration

Mrs. Norman Epstein, Chairman — Mrs. Mathew Hosmer, Co-Chairman

Headquarters

Mrs. Robertson Ward, Chairman — Mrs. Ellsworth Quinlan, Co-Chairman

Finance

Mrs. Howard Dixon, Chairman — Mrs. Walter Lawrence, Co-Chairman

Tickets

Mrs. Thomas Fullenlove, Chairman — Mrs. Frederick Northway, Co-Chairman

Publicity

Mrs. F. Justin McCarthy, Chairman — Mrs. Albert Kulchar, Mrs. Albert Boles, Co-Chairmen

Printing and Supplies

Mrs. T. Edward Bailly Jr., Chairman — Mrs. William Wagner, Co-Chairman

Junior Aids

Mrs. Edmund Morrissey, Chairman — Mrs. Frank Hand, Co-Chairman

Flowers

Mrs. Percival Dolman, Chairman — Mrs. Frederick Scatena, Co-Chairman

Music

Mrs. Francis H. Redewill, Chairman

Hospitality

Mrs. Daniel Morton, Chairman — Mrs. H. Brodie Stephens, Co-Chairman

Information

Mrs. A. Justin Williams, Chairman — Mrs. M. L. Montgomery, Co-Chairman

Tea, Monday, June 26

Mrs. Jesse Carr, Chairman — Mrs. Charles Noble, Co-Chairman

Past Presidents' Luncheon
Tuesday, June 27

Mrs. Keene O. Haldeman, Chairman — Mrs. Norman D. Morgan, Co-Chairman

Annual Luncheon
Wednesday, June 28

Mrs. William Newman, Chairman — Mrs. Roger McKenzie, Co-Chairman

Annual Dinner
Thursday, June 29

Mrs. William A. Carroll, Chairman — Mrs. Henry Gardner, Co-Chairman

Decorations

Mrs. Stanley Burton

Golf and Swimming

Mrs. Loren R. Chandler — Mrs. Edmund Morrissey

National Committees

Nominating. Mrs. Luther H. Kice, Chairman, Mrs. Truman E. Caylor, Mrs. Paul C. Craig, Mrs. George Turner, Mrs. Edgar E. Quayle, Mrs. Charles Waas, Mrs. H. E. Christenberry

Election. Mrs. Donald R. Wright.

Timekeepers. Mrs. Norman Nathanson and Mrs. E. W. Jackson.

Reading. Mrs. James P. Simonds, Chairman, Mrs. William E. Dodd, Mrs. Harry M. Gilkey, Miss Margaret Wolfe.

TELEGRAPH HILL, ALCATRAZ AND THE MARIN COUNTY SHORE

GOLF TOURNAMENT

The American Medical Golfing Association will hold its 34th Tournament on Monday, June 26, the opening day of the 1950 American Medical Association Annual Session. The nationally famous Lakeside Course of Olympic Golf Club, San Francisco, has been reserved for the physician-golfers' tournament. Dinner will be served at Olympic at 7:00 p. m., followed by presentation of the many trophies and prizes.

Two Courses

Olympic has two attractive courses, one of its 18 holes being located on the Pacific Ocean and the other 18 holes on the Bay. All entrants for the 36 hole competition and prizes will play both these sporty courses.

THE DETROIT TROPHY

Fellows may tee off between 7:30 a. m. and 2 p. m. Luncheon will be served at the Club. Entertainment will be held during and after the Golfers' Banquet at 7 p. m.

San Francisco Committee on Arrangements

The San Francisco Committee on Arrangements is under the Chairmanship of Edward Campion, M.D., 1018 E. Street, San Rafael, Calif. He is being assisted by John E. Bohm, M.D., San Francisco; Harry N. Hensler, M.D., San Anselmo; Thomas G. Lawler, M.D., San Francisco, Edward F. Stadtherr, M.D., San Francisco; Robert P. Thompson, M.D., San Francisco, and Paul S. Wyne, M.D., San Francisco. The Advisory Committee is composed of Chairman James W. Morgan, M.D., San Francisco, and Walter F. Schaller, M.D., San Francisco.

Trophies and Prizes

Trophies will be awarded for both 36 hole and 18 hole competition including the Association championship (36 holes), the Will Walter Trophy; the runner-up champion, the Detroit Trophy; the 18 hole championship, the Golden State Trophy; the runner-up 18 hole championship, Ben Thomas Trophy. The Section Event will include silver pitchers for sections such as internal medicine, surgery, general practice, obstetrics and gynecology, dermatology and syphilology and preventive and industrial medicine and public health. The first flight (0 to 13) will contain trophies and prizes for both gross and net in 36 and 18 holes, including the St. Louis Trophy, the President's Trophy, the Atlantic City Trophy and the Sperry Trophy. The second and third flights (14 to 18, and 19 to 30), will contain prizes for both 36 and 18 holes; the maturity event (for Fellows 60 years and older), the Minneapolis Trophy; the Old Guard Championship, the Wendell Phillips Trophy. In addition to these, approximately 75 other prizes will be in competition.

The 10 permanent trophies of the American Medical Golfing Association are on display at the American Medical Association headquarters in Chicago.

Application for Membership

The San Francisco Tournament will give an opportunity to AMGA Fellows, and to those who enter the Association in 1950, to enjoy a wonderful day of golf, to win a nice prize and to join in the famous good fellowship of the American Medical Golfing Association.

All male Fellows of the American Medical Association are cordially invited to become Fellows of the American Medical Golfing Association; execute the following application blank and mail it to Secretary Bill Burns, 2020 Olds Tower, Lansing 8, Mich. This will aid the San Francisco Committee in making necessary arrangements. The starting committee will assist players from the different states to arrange games with like handicaps, age and specialty. No handicap over 30 is allowed. All 18 hole trophies and prizes are awarded on the basis of scores for the first 18 holes played. A Fellow absent from the annual banquet following the tournament forfeits his rights to a trophy or prize.

AMGA Officers

Members of the AMGA Executive Directors for 1950 include C. E. Shannon, M.D., Chicago, President; Jean A. Gruhler, M.D., Atlantic City, President-Elect; T. A. Kyner, M.D., Kansas City, Mo., First Vice President, and D. H. Houston, M.D., Seattle, Permanent Chairman of the Advisory Committee. President Shannon anticipates that approximately 300 AMGA Fellows will play in the enjoyable San Francisco Tournament at Olympic on Monday, June 26.

Mail following application Blank to Bill Burns, Secretary, 2020 Olds Tower, Lansing 8, Mich.

Player's Name.....

Home Address.....

Specialty.....Age: Under 60 ☐ Over 60 ☐

Home Course.....Par of Course.....

Player's Club Handicap.....

New 1950 AMGA Members Check Here ☐

ALL PROSPECTIVE PLAYERS, BOTH FELLOWS AND NEW 1950 MEMBERS, ARE REQUESTED TO EXECUTE APPLICATION BLANK.

PROGRAM OF THE SCIENTIFIC ASSEMBLY

TELEVISION

PRESENTED IN VETERANS' ADMINISTRATION HOSPITAL, FORT MILEY, 42D AVENUE AND CLEMENT STREET, SAN FRANCISCO

Under the combined auspices of University of California Medical School, Stanford University School of Medicine and the Veterans' Administration Hospital, Fort Miley, San Francisco.

MONDAY, JUNE 26

A. M.

9:00 Removal of Pilonidal Cyst.
EMILE HOLMAN, Surgeon in Chief, Stanford University Hospital; Professor of Surgery, Stanford University School of Medicine.

10:00 Gastric Resection.
CARLTON MATHEWSON, Professor of Surgery, Stanford University School of Medicine.

11:00 Vein Ligation and Stripping.
ROY COHN, Assistant Professor of Surgery, Stanford University School of Medicine.

MONDAY, JUNE 26

Sponsored by Veterans' Administration Hospital, Fort Miley

P. M.

2:00 Technic of Bone Marrow Puncture.
MARCUS KRUPP, Assistant Clinical Professor, Stanford University School of Medicine.
HAROLD MILLS, Senior Medical Resident, Fort Miley.

2:40 Voice Training After Operations on the Larynx.
WALTER P. WORK, Assistant Clinical Professor of Surgery, Stanford University School of Medicine.

3:00 Presentation: Patient with Carcinoma of Both Adrenal Glands, After Surgical Removal of Glands.
LOUIS S. BAER, Clinical Instructor, Stanford University School of Medicine.

3:20 The Esophageal Electrocardiographic Lead.
VERNON C. HARP, Electrocardiography Resident, Fort Miley.

3:25 High Caloric Feeding by Means of a Small Plastic Tube.
LOUIS G. BRIZZOLARA, Surgery Resident, Fort Miley.

3:50 Electric Shock Therapy.
WALTER FRIEDLANDER, Acting Chief in Psychiatry, Fort Miley.

TUESDAY, JUNE 27

A. M.

9:00 Thyroidectomy.
GLENN BELL, Professor of Surgery, University of California Medical School.

10:00 Hemorrhoidectomy, Fistula in Ano.
ROBERT SCARBOROUGH, Associate Clinical Professor of Surgery, Stanford University School of Medicine.
RUSSELL KLEIN, Assistant Clinical Professor, Stanford University School of Medicine.

11:00 Ear, Nose and Throat, Elective Tracheotomy.
LEWIS F. MORRISON, Clinical Professor of Surgery, (Otorhinolaryngology), University of California Medical School.

Sponsored by University of California Hospital

P. M.

2:00 Demonstration of Peripheral Vascular Conditions.
RUTHERFORD S. GILFILLAN, Clinical Instructor, University of California Medical School.
EDWIN J. WYLIE, Clinical Instructor, Surgery, University of California Medical School.

2:30 What the Observant Physician Can See in Clinical Endocrinology.
H. LISSER, Clinical Professor, Medicine, University of California Medical School, and Staff.

3:00 Diagnosis and Treatment of Dermatologic Conditions.
FRANCES A. TORREY, Assistant Clinical Professor, Dermatology, University of California Medical School, and Staff.

3:30 Pigmentation.
WILLIAM J. KERR, Professor-Chairman of Department of Medicine, University of California Medical School.

3:40 Abdominal Tap.
DONALD C. BARBOUR, Resident and Instructor, University of California Medical School.

3:55 Demonstration of the Kerr-Lagen Belt.
JOHN B. LAGEN, Associate Professor, University of California Medical School.

4:00 Demonstration of Charts on Blood Clotting.
S. P. LUCIA, Professor of Medicine, University of California Medical School.
P. M. AGGELER, Assistant Clinical Professor, University of California Medical School.

4:10 Demonstration of Neurologic Patients with Various Types of Gaits, Clonus and Babinski (All Easily Visible).
ROBERT B. AIRD, Professor of Neurology, University of California Medical School, and Staff.

4:20 Demonstration of Patients with Cirrhosis of Liver.
T. L. ALTHAUSEN, Professor of Medicine, University of California Medical School.

4:25 1. Demonstration of Iodine Up-Take with a Geiger Counter in Hypothyroidism, Normal Thyroids and Hyperthyroidism.
M. E. DAILEY, Instructor of Medicine, University of California Medical School.
2. Method of Examining the Neck for Thyroid Enlargement and Nodules in the Thyroid.
M. E. DAILEY, Instructor of Medicine, University of California Medical School.
EARL R. MILLER, Professor of Radiology, University of California Medical School.

WEDNESDAY, JUNE 28

A. M.

9:00 Excision of Subdeltoid Bursa of Shoulder.
LEROY C. ABBOT, Professor of Orthopedic Surgery, University of California Medical School.

10:00 Occipital Neurectomy.
HOWARD NAFFZIGER, Professor of Surgery, University of California Medical School.
O. W. JONES, Associate Professor of Surgery, University of California Medical School.

11:00 Nephrectomy.
FRANK HINMAN, Professor of Urology, University of California Medical School.

Sponsored by San Francisco Hospital and Health Department and Combined Staff of University of California and Stanford University Medical Schools

P. M.

2:00 Cytologic Diagnosis of Cancer.
MILTON ROSENTHAL, Clinical Instructor in Pathology; Lecturer in Obstetrics and Gynecology.
RICHARD SKAHEN, Research Fellow in Obstetrics and Gynecology.

2:20 Herniation of the Small Intestine: Roentgenologic Demonstration.
A. JUSTIN WILLIAMS, Assistant Clinical Professor, Radiology, University of California Medical School.

2:40 Common Skin Diseases: Diagnosis and Treatment.
DWIGHT MORROW, Clinical Instructor in Dermatology, University of California Medical School.

3:00 Demonstration of Fresh Pathologic Specimen.
A. COX, Professor of Pathology, Stanford University School of Medicine.

3:20 Case Demonstrations: Neurologic.
AL LUBIN, Assistant Clinical Professor, Stanford University School of Medicine.

3:40 Demonstration of Various Clinical Signs.
J. HATCH, Assistant Clinical Professor in Medicine, Stanford University School of Medicine.

THURSDAY, JUNE 29

A. M.

9:00 Cataract.
ALFRED E. MAUMENEE, Professor of Ophthalmology, Stanford University School of Medicine.

10:00 Cholecystectomy.
LEON GOLDMAN, Associate Professor, University of California Medical School.

11:00 Plastic Surgery of Hand.
STERLING BUNNELL.
L. D. HOWARD, Assistant Clinical Professor of Surgery, Stanford University Medical School.

Sponsored by Medical Department of Stanford University School of Medicine

P. M.

2:00 Demonstration by the Diabetic Clinic, Stanford University School of Medicine.

1. Simple Laboratory Methods.
IRENE MCPHERRIN, Stanford University School of Medicine.

2. Skin Reactions to Insulin.
HAROLD HARVEY, Instructor in Medicine, Stanford University School of Medicine.

3. Insulin Atrophies.
HERBERT JACOBS, Instructor in Medicine, Stanford University School of Medicine.

2:25 Diabetic Retinopathy: Pictures of Fundus.
A. E. MAUMENEE, Professor of Ophthalmology, Stanford University School of Medicine.

2:40 Problem of Overweight Patients with Diabetes: Panel Discussion.

3:00 Stanford University Hospitals, Diet Rounds.
LOWELL A. RANTZ, Associate Professor in Medicine, Stanford University School of Medicine.
NANCY HOOPER, Dietetic Department, Stanford University Hospitals.
Demonstration of regular and special diets. A teaching exercise conducted regularly for medical students, house officers, nurses and dieticians.

3:30 Exophthalmos in Thyrotoxicosis.

1. Medical Aspects.
FRANCIS GREENSPAN, Instructor in Ophthalmology, Stanford University School of Medicine.

2. Ophthalmologic Aspects.
A. E. MAUMENEE, Professor in Ophthalmology, Stanford University School of Medicine.

GENERAL SCIENTIFIC MEETINGS

AUDITORIUM OF HIGH SCHOOL OF COMMERCE

Monday, June 26—2 p. m.

HENRY R. VIETS, Chairman, Council on Scientific Assembly, Presiding

ATOMIC ENERGY COMMISSION SYMPOSIUM

Atomic Energy in War and in Peace.
GORDON E. DEAN, U. S. Atomic Energy Commission.

Atomic Energy in War and in Peace: Medical Aspects.
SHIELDS WARREN, Director, Division of Biology and Medicine, U. S. Atomic Energy Commission.

In War

The Burn Problem.
EVERETT EVANS, Professor of Surgery and Laboratory Director for Surgical Research, Medical College of Virginia.

The Acute Radiation Syndrome.
JOHN Z. BOWERS, Deputy Director, Division of Biology and Medicine, U. S. Atomic Energy Commission.

Diagnosis and Treatment of Radiation Injuries.
EUGENE CRONKITE, Officer in Charge of the Hematology Department, Naval Medical Research Institute, Bethesda, Md.

Civil Defense Aspects.
NORVIN C. KIEFER, Director, Health Resources Division, National Security Resources Board.

In Peace

Medical Applications of Tracer Technics.
HARDIN JONES, Associate Director, Medical Physics and Biology, Radiation Laboratory, University of California, Berkeley, Calif.

Diagnostic and Therapeutic Use of Radioactive Phosphorus.
JOSEPH F. ROSS, Associate Professor of Medicine, Boston University School of Medicine, Boston.

Diagnostic and Therapeutic Use of Radioactive Iodine.
DWIGHT CLARK, Associate Professor of Medicine and Secretary to the Department of Surgery, University of Chicago, Chicago.

Tuesday, June 27—9 a. m.

DR. MICHAEL E. DEBAKEY, Member, Council on Scientific Assembly, Presiding

The End Results in Patients with Carcinoma of the Colon and Rectum.
FRANK H. LAHEY, Director of Surgery, Lahey Clinic, Boston.

9:30 a. m. **Recent Trends in Antibiotic Therapy.**
WILLIAM M. M. KIRBY, Associate Professor of Medicine, University of Washington, Seattle.

10:00 a. m. **An Analysis of Drugs Used in Allergy.**
CHAUNCEY D. LEAKE, Vice President, University of Texas, Galveston, Texas.

10:30-11:00 a. m.—**Intermission.**
STANLEY P. REIMANN, Member, Council on Scientific Assembly, Presiding

11:00 a. m. **Benign Obstruction of the Lower Esophagus.**
NATHAN A. WOMACK, Professor of Surgery, University of Iowa, Iowa City.

11:30 a. m. **Psychiatry in 1950.**
C. CHARLES BURLINGAME, Director, Institute of Living, Hartford, Conn.

Tuesday, June 27—2 p. m.

ALPHONSE MCMAHON, Member, Council on Scientific Assembly, Presiding

The Present Status of Cortisone, ACTH and Related Substances in General Medicine.
PHILIP S. HENCH, Mayo Clinic, Rochester, Minn.

2:30 p. m. **Protein Metabolism in Surgical Patients.**
I. S. RAVDIN, Professor of Surgery, University of Pennsylvania, Philadelphia.

3:00 p. m. **Clinical Studies in Vagotomized Patients.**
WALTMAN WALTERS, Mayo Clinic, Rochester, Minn.

3:30-4:00 p. m. **Intermission.**
CARL A. LINCKE, Member, Council on Scientific Assembly, Presiding

4:00 p. m. **Use and Abuse of Estrogens.**
J. P. PRATT, Surgeon-in-Charge, Division of Gynecology and Obstetrics, Henry Ford Hospital, Detroit.

4:30 p. m. **The American Physician and His Opportunities for Increased Service Through Public Health.**
JAMES STEVENS SIMMONS, Dean, School of Public Health, Harvard University, Boston.

THE PROGRAMS OF THE SECTIONS

Outline of the Scientific Proceedings

The following papers are announced to be read before the various sections. The order here is not necessarily the order that will be followed in the Official Program. The Official Program will be similar to the programs issued in previous years and will contain the final program of each section with abstracts of the papers, as well as lists of committees, program of the Inaugural Meeting, list of entertainments and other information. To prevent misunderstandings and protect the interest of advertisers, it is here announced that this Official Program will contain no advertisements. It is copyrighted by the American Medical Association and will not be distributed before the session. A copy will be given to each Fellow on registration.

SECTION ON ANESTHESIOLOGY

MEETS IN HALL 2, MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—FREDERIC W. CLEMENT, Toledo, Ohio.
Vice Chairman—SCOTT M. SMITH, Salt Lake City.
Secretary—JOHN S. LUNDY, Rochester, Minn.
Executive Committee—RALPH M. TOVELL, Hartford, Conn.; C. WALTER METZ, Denver; FREDERIC W. CLEMENT, Toledo, Ohio.

Wednesday, June 28—2 p. m.

BUSINESS MEETING FOR PRESENTATION OF RESOLUTIONS TO HOUSE OF DELEGATES

REPORT OF DELEGATES ON 1949 CLINICAL SESSION AND MATTERS OF INTEREST AT PRESENT

A Preliminary Report on the Activities of the Anesthetic Study Committee of the Medical Society of the County of Kings, New York.
IRVING M. PALLIN, Brooklyn.
Discussion to be opened by FREDERICK P. HAUGEN, Portland, Ore., and HENRY K. BEECHER, Boston.

Anesthesia for Mitral Commissurotomy: Preliminary Report.
HENRY S. RUTH, Haverford, Pa., and KENNETH K. KEOWN and D. DWIGHT GROVE, Philadelphia.
Discussion to be opened by LLOYD H. MOUSEL, Seattle, and WILLIAM O. MCQUISTON, Peoria, Ill.

Factors Influencing Resistance to Anoxic Anoxia.
J. L. BOLLMAN and A. N. FAZIO, Rochester, Minn.
Discussion to be opened by FRED C. DYE, San Antonio, Texas, and ERNEST A. DOUD, San Diego, Calif.

Controlled Clinical Evaluation of Three Curare Preparations.
DONALD W. HESSELSCHWERDT, Iowa City; EDWIN L. RUSHIA, Little Rock, Ark., and LUCIEN E. MORRIS and STUART C. CULLEN, Iowa City.
Discussion to be opened by FRANK J. MURPHY, San Francisco; V. K. STOELTING, Indianapolis, and JOHN R. LINCOLN, Portland, Maine.

Pheochromocytomas: The Anesthetic Problem During Surgical Treatment.
E. M. PAPPER and VIRGINIA APGAR, New York.
Discussion to be opened by ALBERT J. OCHSNER, New Orleans, and WILLIAM B. NEFF, San Francisco.

Thursday, June 29—2 p. m.

BUSINESS MEETING

ELECTION OF OFFICERS

Diagnostic and Therapeutic Nerve Block: Indications for Its Use. R. CHARLES ADAMS, Rochester, Minn.

Necessity for Roentgenograms During Diagnostic and Therapeutic Nerve Blocks.
JOHN W. PENDER and DAVID G. PUGH, Rochester, Minn.

Use of Tetracaine Hydrochloride Nerve Block and Infiltration Analgesia, Therapeutic and Diagnostic Blocks: 2,500 Cases. DANIEL C. MOORE, Seattle.
Discussion to be opened by JOHN J. BONICA, Tacoma, Wash.; JOHN W. WINTER, San Antonio, Texas, and RICHARD H. BARRETT, Hanover, N. H.

Chairman's Address: Surgery Before the Days of Anesthesia. FREDERIC W. CLEMENT, Toledo, Ohio.

Use of Various Plastic Catheters in the Subarachnoid and Peridural Spaces for the Continuous Administration of Anesthetics and Therapeutic Medicaments.

HAROLD H. DAVIDSON, ROBERT A. HINGSON and LOUIS M. HELLMAN, Baltimore.

Discussion to be opened by JOHN W. SHUMAN JR., Los Angeles, and CHARLES C. WYCOFF, San Francisco.

Friday, June 30—2 p. m.

JOINT MEETING WITH THE SECTION ON OBSTETRICS AND GYNECOLOGY IN AUDITORIUM OF VETERANS WAR MEMORIAL

JAMES R. BLOSS, Huntington, W. Va., Presiding

Choice of Anesthesia for Vaginal Surgical Procedures.

A. E. MORRISON and CHARLES F. MCCUSKEY, Los Angeles.

Discussion to be opened by DONALD W. DE CARLE, San Francisco, and BRUCE M. ANDERSON, Oakland, Calif.

SYMPOSIUM ON PAIN RELIEF IN OBSTETRICS

FREDERIC W. CLEMENT, Toledo, Ohio, Moderator

Choices of Analgesia During the First Stage of Labor.

CURTIS J. LUND, New Orleans.

Choice of Anesthesia for Normal Delivery.

EARLE W. CARTWRIGHT, Pasadena, Calif.

Choices of Anesthesia for Operative Vaginal and Abdominal Delivery.

R. J. WHITACRE and P. G. CRESSMAN, East Cleveland, Ohio.

Discussion on papers of Dr. Lund, Dr. Cartwright and Drs. Whitacre and Cressman to be opened by SCOTT M. SMITH, Salt Lake City; DONALD C. TOLLEFSON, Los Angeles; ROBERT A. HINGSON, Baltimore, and WILLIAM H. MASTERS, St. Louis.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

MEETS IN BANQUET ROOM OF CALIFORNIA HALL

OFFICERS OF SECTION

Chairman—CLINTON W. LANE, St. Louis.

Vice Chairman—NORMAN EPSTEIN, San Francisco.

Secretary—JOHN H. LAMB, Oklahoma City.

Executive Committee—HENRY E. MICHELSON, Minneapolis; ANTHONY C. CIPOLLARO, New York; CLINTON W. LANE, St. Louis.

Wednesday, June 28—9 a. m.

Chairman's Address: Verruca, Dermatologic Problem.

CLINTON W. LANE, St. Louis.

The L. E. Test in Acute Disseminated Lupus Erythematosus.

JOHN R. HASERICK, Cleveland.

Discussion to be opened by JOHN F. MADDEN, St. Paul.

The Adult Form of Chronic Porphyria with Light Sensitivity.

LOUIS A. BRUNSTING, HAROLD L. MASON and ROBERT A. ALDRICH, Rochester, Minn.

Discussion to be opened by DONALD M. PILLSBURY, Philadelphia.

Lymphocytoma Cutis: Report of Two Cases.

A. B. LOVEMAN and M. T. FLIEGELMAN, Louisville, Ky.

Discussion to be opened by ZOLA K. COOPER, St. Louis.

Is Mycosis Fungoides a Reticuloendothelial Neoplastic Entity?

EDWARD P. CAWLEY, ARTHUR C. CURTIS and JAMES E. K. LEACH, Ann Arbor, Mich.

Discussion to be opened by RICHARD S. WEISS, St. Louis.

Dermatitis from Local Anesthetics, with a Review of 107 Cases from the Literature.

C. GUY LANE, Boston, and RALPH H. LUIKART II, Santa Barbara, Calif.

Discussion to be opened by EARL D. OSBORNE, Buffalo.

Thursday, June 29—9 a. m.

ELECTION OF OFFICERS

The Distinguished Lecture in Dermatology: Ringworm of the Hands and Feet (Historical Review).

JAMES H. MITCHELL, Chicago.

Mycologic and Histopathologic Technics in the Study of Fungus Infections.

GEORGE M. LEWIS, WILBERT SACHS and MARY E. HOOPER, New York.

Discussion to be opened by STURE A. M. JOHNSON, Madison, Wis.

Pyogenic Infections of the Skin: An Etiologic Factor in Acute Glomerulonephritis of Children.

J. LAMAR CALLAWAY and HARRY B. O'REAR, Durham, N. C.

Discussion to be opened by EVERETT SEALE, Houston, Texas.

Congenital Vascular Anomalies: Case Reports and Discussion of Unusual Vascular Lesions.

ACOMS W. THOMPSON and JUNE CAROL SHAFER, Arlington, Va.

Discussion to be opened by HARRY L. ARNOLD, Honolulu, T. H.

Fascial Hernias of the Legs.

MAXIMILIAN E. OBERMAYER and J. WALTER WILSON, Los Angeles.

Discussion to be opened by J. V. VAN CLEVE, Wichita, Kan.

Lipomelanotic Reticular Hyperplasia of Lymph Nodes.

T. C. LAIPPLY and CLEVELAND J. WHITE, Chicago.

Discussion to be opened by FRANK GRAUER, Washington, D. C.

Friday, June 30—9 a. m.

SYMPOSIUM ON THERAPY

Modern Treatment of Acne.

GEORGE C. ANDREWS, New York.

Discussion to be opened by MERLIN T. MAYNARD, San Jose, Calif.

Treatment of Psoriasis with Undecylenic Acid by Mouth.

HERBERT RATTNER, Chicago and HERMAN HAROLD RODIN, South Bend, Ind.

Discussion to be opened by A. BENSON CANNON, New York.

Bromide Intoxication Treated with Diuretic Chlorides.

T. C. CORNBLEET, Chicago.

Discussion to be opened by C. P. BONDURANT, Oklahoma City.

The Value of Penicillin, Chloramphenicol and Aureomycin in the Treatment of Syphilis.

HARRY ROBINSON SR. and HARRY ROBINSON JR., Baltimore.

Discussion to be opened by W. B. GUY, Pittsburgh.

Treatment of Chronic Cutaneous Problems with Calciferol.
LAWRENCE C. GOLDBERG and HELEN L. T. DEXTER, Cincinnati.
Discussion to be opened by D. T. GANDY, Houston, Texas.

Use of the Hypospray in Dermatology.
ROBERT H. PRESTON, ROBERT G. THOMPSON and LEON GOLDMAN, Cincinnati.
Discussion to be opened by JOSEPH M. HITCH, Raleigh, N. C.

SECTION ON DISEASES OF THE CHEST

MEETS IN HALL 1 OF MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—WALTER E. VEST, Huntington, W. Va.
Vice Chairman—ALVIS E. GREER, Houston, Texas.
Secretary—JAY A. MYERS, Minneapolis.
Executive Committee—S. U. MARIETTA, Washington, D. C.; WALTER E. VEST, Huntington, W. Va.

Wednesday, June 28—9 a. m.

Chairman's Address: Shakespeare's Knowledge of Chest Conditions. WALTER E. VEST, Huntington, W. Va.

An Analysis of Approximately 200,000 X-Ray Inspections of the Chests of Admissions to General Hospitals.
WILILAM SIEGAL, ROBERT E. PLUNKETT and HERMAN E. HILLEBOE, Albany, N. Y.
Discussion to be opened by H. CORWIN HINSHAW, San Francisco.

Carcinoma of the Lung: Duration of Life of Persons Not Treated Surgically. ELI H. RUBIN, New York.
Discussion to be opened by ALFRED GOLDMAN, Beverly Hills, Calif., and RALPH ADAMS, Woodbury, Tenn.

Pulmonary Mycoses: Coccidioidomycosis and Pulmonary Cavitation: A Study of 92 Cases.
WILLIAM A. WINN, Springville, Calif.
Discussion to be opened by CHARLES E. SMITH, Berkeley, Calif., and O. J. FARNESS, Tucson, Ariz.

Care of Tuberculous Veterans: A Continuing Problem.
JOHN B. BARNWELL, Washington, D. C.

Thursday, June 29—9 a. m.

ELECTION OF OFFICERS

Segmental Resection for Pulmonary Diseases.
WILLIAM S. CONKLIN, Portland, Ore.

Suggestions for the Clinical Diagnosis of the Patient with Abnormal Chest X-Ray Shadows.
JOHN F. BRIGGS, St. Paul.
Discussion to be opened by SEYMOUR M. FARBER, San Francisco, and ROBERT J. ANDERSON, Washington, D. C.

An Ethnic Reservoir of Tuberculosis.
H. DELIEN, Washington, D. C.
Discussion to be opened by W. P. SHEPARD, San Francisco.

Early Detection of Bronchogenic Carcinoma.
DONALD L. PAULSON and ROBERT R. SHAW, DALLAS, Texas.

Treatment of Tuberculous Laryngitis by Chemotherapy.
LINDEN J. WALLNER, GEORGE C. TURNER, MEYER R. LICHTENSTEIN and HENRY C. SWEANY, Chicago.

Pulmonary Histoplasmosis: Review of the Published Cases and Discussion of Two Cases Treated by Lobectomy.
CORBIN H. HODGSON, O. C. CLAGETT and L. A. WEED, Rochester, Minn.
Discussion to be opened by ARTHUR W. DURVEA, Alexandria, La.

Idiopathic Spontaneous Pneumothorax.
FELIX A. HUGHES JR., Memphis, Tenn.

SECTION ON EXPERIMENTAL MEDICINE AND THERAPEUTICS

MEETS IN BOYS AND GIRLS GYMNASIUM, HIGH SCHOOL OF COMMERCE

OFFICERS OF SECTION

Chairman—McKEEN CATTELL, New York.
Vice Chairman—JAMES A. GREENE, Houston, Texas.
Secretary—CARL V. MOORE, St. Louis.
Executive Committee—WALTER BAUER, Boston; DWIGHT L. WILBUR, San Francisco; McKEEN CATTELL, New York.

Wednesday, June 28—9 a. m.

Oral Administration of Vitamin B_{12} in the Treatment of Pernicious Anemia.
B. E. HALL, Rochester, Minn.; F. H. BETHEL, A. A. CINTRON-RIVERA and S. MILLER, Ann Arbor, Mich., and D. C. CAMPBELL, Rochester, Minn.
Discussion to be opened by GARNETT CHENEY, San Francisco.

SYMPOSIUM ON ACTH AND CORTISONE

Effects of Cortisone and Pituitary ACTH on Rheumatic Diseases.
PHILIP S. HENCH, CHARLES H. SLOCUMB, HOWARD F. POLLEY and EDWARD C. KENDALL, Rochester, Minn.

Effects of ACTH on Rheumatic Fever and Rheumatic Carditis. BENEDICT F. MASSELL, Boston.

Effects of ACTH on the Hypersensitive State.
JOHN EAGER HOWARD, RICHARD A. CAREY, A. McGEHEE HARVEY, ALBERT L. KATTERS JR. and WALTER L. WINKENWERDER, Baltimore.

Use of ACTH and Cortisone in Lymphomas and Leukemias.
O. H. PEARSON and L. P. ELIEL, New York.

Physiologic Effects of Cortisone and ACTH in Man.
RANDALL G. SPRAGUE, Rochester, Minn.
Discussion on papers included in symposium to be opened by RICHARD FREYBERG and T. DUCKETT JONES, New York; LAURANCE W. KINSELL, Oakland, CALIF.; THERON G. RANDOLPH, Chicago, and J. W. CONN, Ann Arbor, Mich.

Thursday, June 29—9 a. m.

BUSINESS MEETING

ELECTION OF OFFICERS

Chairman's Address: Dosage in the Therapy of Cardiovascular Disease. McKEEN CATTELL, New York.

Pharmacologic Properties of Antihistaminics in Relation to Allergic and Nonallergic Diseases.
EARL R. LOEW, Boston.
Discussion to be opened by WILLARD S. SMALL, Pasadena, Calif.

Results of Treatment of Grave's Disease and Toxic Nodular Goiter with Radioactive Iodine.
E. PERRY MCCULLAGH and CHARLES E. RICHARDS, Cleveland.
Discussion to be opened by SIDNEY C. WERNER, New York.

Administration of Massive Dosage of Estrogen to Breast and Prostate Cancer Patients: Blood Levels Attained. ROY HERTZ, Bethesda, Md.
Discussion to be opened by GEORGE C. ESCHER, New York.

Therapeutic Effects of Terramycin in Experimental Rickettsial Infections. JOHN C. SNYDER, Boston.
Discussion to be opened by HARRY M. ROSE, New York, and HERALD R. COX, Pearl River, N. Y.

Alteration in Permeability of Membranes in Infections.
GEORGE T. HARRELL, Winston-Salem, N. C.

Friday, June 30—9 a. m.

JOINT MEETING WITH THE SECTION ON INTERNAL MEDICINE

SYMPOSIUM ON ANTIBIOTICS

A New Method for Treatment of Brucellosis (Combined Use of Aureomycin and Dihydrostreptomycin).
WALLACE E. HERRELL, Rochester, Minn., and TRACY E. BARBER, Austin, Minn.
Discussion to be opened by K. T. MEYER, San Francisco, and C. WESLEY EISELE, Chicago.

Speculations on the Mechanism of Cure of Subacute Bacterial Endocarditis.
THOMAS H. HUNTER, St. Louis.

Revision of Diagnostic Criteria and Therapeutic Technics in Subacute Bacterial Endocarditis.
CHARLES K. FRIEDBERG, New York.
Discussion on papers of Drs. Hunter and Friedberg to be opened by ARTHUR L. BLOOMFIELD and ERNEST JAWETZ, San Francisco.

SYMPOSIUM ON TREATMENT OF DISEASES OF THE PACIFIC

Chemotherapy of Filariasis Bancrofti Under Field Conditions. JAMES I. KNOTT, San Diego, Calif.

The Current Status of Therapy in Leprosy.
FREDERICK A. JOHANSEN and PAUL T. ERICKSON, Carville, La.

Modern Treatment of Plague.
KARL F. MEYER, San Francisco.

Diagnosis and Treatment of Q Fever.
WILLIAM H. CLARK, Berkeley, Calif.
Discussion on papers of Drs. Knott, Johansen and Erickson, Meyer and Clark to be opened by GEORGE T. HARRELL, Winston-Salem, N. C.

SECTION ON GASTRO-ENTEROLOGY AND PROCTOLOGY

MEETS IN AUDITORIUM OF MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—RUSSELL S. BOLES, Philadelphia.
Vice Chairman—FRANK G. RUNYEON, Reading, Pa.
Secretary—DONOVAN C. BROWNE, New Orleans.
Executive Committee—SARA M. JORDAN, Boston; WILLIAM H. DANIEL, Los Angeles; RUSSELL S. BOLES, Philadelphia.

Wednesday, June 28—9 a. m.

Advances in the Management of Jaundice: Experiences with 500 Jaundice Cases.
FREDERICK STEIGMANN, Chicago.
Discussion to be opened by T. L. ALTHAUSEN, San Francisco.

Hormone Studies in Peptic Ulcer: ACTH and Cortisone; Preliminary Report.
DAVID J. SANDWEISS, HARRY C. SALTZSTEIN, ARTHUR PARKS and S. S. SCHEINBERG, Detroit.
Discussion to be opened by SARA M. JORDAN, Boston.

An Internist Views the Surgical Treatment of Peptic Ulcer.
WALTER L. PALMER, JOSEPH B. KIRSNER and ERWIN LEVIN, Chicago.
Discussion to be opened by CARLETON J. MATHEWSON, San Francisco.

Massive Upper Digestive Tract Hemorrhage of Unexplained Origin.
I. R. JANKELSON and LEO R. MILNER, Boston.

The Role of Blood Transfusion in the Management of Bleeding Peptic Ulcer.
H. MARVIN POLLARD and ARNOLD WOLLUM, Ann Arbor, Mich.

Management of Massive Hemorrhage.
WILLIAM F. LIPP, MORTON H. LIPSITZ, ELMER MILCH and A. H. AARON, Buffalo.
Discussion of papers of Drs. Jankelson and Milner, Pollard and Wollum and Lipp, Lipsitz, Milch and Aaron to be opened by DWIGHT L. WILBUR, San Francisco, and KENNETH C. SAWYER, Denver.

Nutritional Problems Following Resection of the Small Intestine for Regional Ileitis.
EVERETT D. KIEFER and WILLIAM T. ARNOLD, Boston.
Discussion to be opened by JOHN H. FITZGIBBON, Portland, Ore.

Thursday, June 29—9 a. m.

ELECTION OF OFFICERS

Chairman's Address. RUSSELL S. BOLES, Philadelphia.

Chloramphenicol and Antiulcer Factors in the Treatment of Chronic Ulcerative Colitis: One Year Clinical Evaluation. Z. T. BERKOVITZ, New York.
Discussion to be opened by ROBERT J. ROWE, Dallas, Texas, and M. H. STREICHER, Chicago.

Vagotomy for Idiopathic Ulcerative Colitis and Regional Enteritis. PHILIP THOREK, Chicago.
Discussion to be opened by ALBERT F. R. ANDRESEN, Brooklyn, and EMILE HOLMAN, San Francisco.

Retrorectal Tumors.
RAYMOND J. JACKMAN, P. LEMON CLARK III and NEWTON D. SMITH, Rochester, Minn.
Discussion to be opened by A. GERSON CARMEL, Cincinnati.

The Colostomy: Its Construction and Care.
FREDERICK B. CAMPBELL and WILLIAM C. SCHAERRER, Kansas City, Mo.
Discussion to be opened by WILLIAM H. DANIEL, Los Angeles.

Causes and Treatment of Pruritus Ani.
CLAUDE C. TUCKER, Wichita, Kan.
Discussion to be opened by ALBERT H. ROWE, Oakland, Calif.

Friday, June 30—9 a. m.

JOINT MEETING WITH SECTION ON PATHOLOGY AND PHYSIOLOGY

Therapy of Amebic Dysentery.
J. A. BARGEN, Rochester, Minn.

Acute and Chronic Pancreatitis. A. C. IVY, Chicago.

Problems on Gastrointestinal Necrosis.
GRANT LAING, Chicago.

Nutritional Deficiencies.
TOM D. SPIES and ROBERT E. STONE, Birmingham, Ala.
Discussion to be opened by DWIGHT L. WILBUR, San Francisco.

SECTION ON GENERAL PRACTICE

MEETS IN BOYS AND GIRLS GYMNASIUM, HIGH SCHOOL OF COMMERCE

OFFICERS OF SECTION

Chairman—MILTON B. CASEBOLT, Kansas City, Mo.
Vice Chairman—LESTER D. BIBLER, Indianapolis.
Secretary—THOMAS E. ROBINSON, Salt Lake City.
Executive Committee—ERIC A. ROYSTON, Los Angeles; WINFRED B. HARM, Detroit; MILTON B. CASEBOLT, Kansas City, Mo.

Wednesday, June 28—2 p. m.

Chairman's Address. MILTON B. CASEBOLT, Kansas City, Mo.

The General Practitioner as an Urologist.
ELMER HESS, RUSSELL B ROTH and ANTHONY F. KOMINSKY, Erie, Pa.
Discussion to be opened by CARL E. BURKLAND, Sacramento, Calif., and RUSSELL B. ROTH, Erie, Pa.

Bedside Management of Problems of Fluid Balance.
BELDING H. SCRIBNER, MARSCHELLE H. POWER and E. H. RYNEARSON, Rochester, Minn.
Discussion to be opened by VICTOR RICHARDS and DWIGHT L. WILBUR, San Francisco.

Recent Advances in the Dietary and Medicinal Treatment of Arteriosclerosis.
LESTER M. MORRISON, Los Angeles.

Groin Pain Due to Spasm of the Adductor Longus Muscle: Treatment by Local Procaine Infiltration and Ethyl Chloride Spray.
JANET TRAVELL, New York.
Discussion to be opened by PHILIP LEWIN, Chicago.

Sciatica: Differential Diagnosis and Treatment.
CLARK H. MILLIKAN, Rochester, Minn.
Discussion to be opened by JOSEPH BARR, Boston, and C. HUNTER SHELDON, Pasadena, Calif.

Results of Current Studies of a Specific Type of Streptococcus in the Etiology, Diagnosis and Treatment of Epidemic Poliomyelitis.
EDWARD C. ROSENOW, Cincinnati.

Head Pain and Headache from Ocular Origin.
A. D. RUEDEMANN, Detroit.
Discussion to be opened by FREDERICK C. CORDES, San Francisco, and KENNETH SWAN, Portland, Ore.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

The Superiority of Combined Oral Estrogen-Androgen Therapy for Menopausal Syndrome.
S. J. GLASS, Los Angeles.
Discussion to be opened by L. F. HAWKINSON, Oakland, Calif., and UDALL J. SALMON, New York.

The Management of Functional Bleeding Problems.
E. G. HOLMSTROM, Salt Lake City.
Discussion to be opened by CHARLES E. McLENNAN, San Francisco.

Applications in Office Practice of Sponge Biopsy: A New Method in the Diagnosis of Cancer.
SIDNEY A. GLADSTONE, New York.
Discussion to be opened by N. CHANDLER FOOT, New York, and EMIL NOVAK, Baltimore.

ROUND TABLE ON FRACTURES OF THE EXTREMITIES
KELLOGG SPEED, Chicago, Moderator

Fractures of the Shaft of the Femur.
GORDON MACKAY MORRISON, Boston.

Fractures About the Ankle Joint.
FREDERICK A. JOSTES, St. Louis.

Colles Fracture. RALPH G. CAROTHERS, Cincinnati.

Fractures of the Humerus. CARL DAVIS JR., Chicago.

Fractures of the Forearm.
BARBARA B. STIMSON, Poughkeepsie, N. Y.

Friday, June 30—9 a. m.

JOINT MEETING WITH THE SECTION ON PEDIATRICS IN AUDITORIUM OF HIGH SCHOOL OF COMMERCE

Intestinal Obstruction in the Newborn Infant.
OSWALD S. WYATT, Minneapolis.
Discussion to be opened by CLIFFORD D. BENSON, Detroit, and CLIFFORD SWEET, Oakland, Calif.

Management of Acute Meningitis.
J. HARRY MURPHY, Omaha.
Discussion to be opened by HULDA E. THELANDER, San Francisco.

Diagnostic Drifts, Deceptions and Common Misses.
M. PINSON NEAL, Columbia, Mo.
Discussion to be opened by OSCAR B. HUNTER, Washington, D. C., and J. B. BILDERBACK, Portland, Ore.

Congenital Megacolon or Hirschsprung's Disease: Its Successful Management by Surgical or Medical Means in Nine Cases.
ALEXANDER H. BILL JR., Seattle.
Discussion to be opened by FREDERICK C. MOLL, Seattle, and L. E. HARRIS, Rochester, Minn.

Behavior Disturbances in Epileptic Children.
CHARLES BRADLEY, Portland, Ore.
Discussion to be opened by WILLIAM W. BELPORN, San Diego, Calif., and E. D. ANDERSON, Minneapolis.

Treatment of Bronchial Allergy in Children.
BEN F. FEINGOLD, Los Angeles.
Discussion to be opened by RALPH BOWEN, Houston, Texas; ALBERT H. ROWE, Oakland, Calif., and FRED W. WITTICH, Minneapolis.

SECTION ON INTERNAL MEDICINE

MEETS IN AUDITORIUM OF HIGH SCHOOL OF COMMERCE

OFFICERS OF SECTION

Chairman—ARTHUR L. BLOOMFIELD, San Francisco.
Vice Chairman—RALPH A. KINSELLA, St. Louis.
Secretary—WALTER L. PALMER, Chicago.
Executive Committee—CECIL J. WATSON, Minneapolis; M. A. BLANKENHORN, Cincinnati; ARTHUR L. BLOOMFIELD, San Francisco.

Wednesday, June 28—2 p. m.

Uses and Limitations of Steroids in the Treatment of Advanced Carcinoma of the Breast.
SAMUEL G. TAYLOR III, DANELY P. SLAUGHTER, ROGER S. MORRIS JR. and L. WALTER FIX, Chicago.
Discussion to be opened by FRANK E. ADAIR, New York; IAN G. MACDONALD, Los Angeles, and WALTON VAN WINKLE JR., Chicago.

The Frank Billings Lecture: Reflections on the Causation of Diabetes Mellitus.
RUSSELL M. WILDER, Rochester, Minn.

The Pituitary-Thyroid-Adrenal Triangle.
JACOB LERMAN, FARAHE MALOFF, J. H. MEANS, B. G. STALL, J. B. STANBURY and HARRY STATLAND, Boston.
Discussion to be opened by WILLARD O. THOMPSON, Chicago, and LAWRENCE KINSELL, San Francisco.

Hyperthyroidism Without Ostensible Hypermetabolism.
SIDNEY C. WERNER and HOWARD HAMILTON, New York.
Discussion to be opened by M. PAUL STARR, Pasadena, Calif., and EDWARD D. ROBBINS, Chicago.

Radioactive Iodine Treatment of Intractable Angina Pectoris and Congestive Failure by Producing Hypothyroidism.
HERRMAN L. BLUMGART, A. STONE FREEDBERG and GEORGE S. KURLAND, Boston.
Discussion to be opened by D. A. RYTAND, San Francisco, and HOWARD P. LEWIS, Portland, Ore.

Observations on Protein, Salt and Adrenal Hormones in Cirrhosis of the Liver.
ROBERT M. KARK, ROBERT W. KEETON, NATHANIEL O. CALLOWAY and ROBERT H. KYLE, Chicago.
Discussion to be opened by J. A. Luetscher, San Francisco.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

Diagnostic Aspects of Carcinoma of the Lung Correlated with End Results of Surgical Treatment.
HENRY M. THOMAS JR. and WILLIAM F. REINHOFF JR., Baltimore.
Discussion to be opened by VERNE R. MASON, Beverly Hills, Calif., and EMILE F. HOLMAN, San Francisco.

A Pheochromocytoma Successfully Removed with the Aid of Benzodioxane.
ROBERT J. KOSITSHEK and MARCUS RABWIN, Beverly Hills, Calif.
Discussion to be opened by HOWARD R. BIERMAN, San Francisco, and MORRIS H. NATHANSON, Los Angeles.

Chairman's Address: Some Problems of the Common Cold. ARTHUR L. BLOOMFIELD, San Francisco.

On the Nature and Treatment of Auricular Fibrillation.
MYRON PRINZMETAL, ROBERT W. OBLATH, ELIOT CORDAY, I. C. BRILL and H. E. KRUGER, Los Angeles.
Discussion to be opened by WILLIAM J. KERR, San Francisco.

The Prophylaxis of Subacute Bacterial Endocarditis.
A. CARLTON ERNSTENE, C. J. MCGARVEY and JEROME A. ECKER, Cleveland.
Discussion to be opened by CHARLES K. FRIEDBERG, New York; L. A. RANTZ, San Francisco, and EDWARD C. ROSENOW JR., Pasadena, Calif.

Nonspecific (Benign) Pericarditis.
WILLIAM B. PORTER, OSCAR W. CLARKE and R. R. PORTER, Richmond, Va.
Discussion to be opened by ARLIE R. BARNES, Rochester, Minn., and LEROY H. BRIGGS, San Francisco.

Friday, June 30—9 a. m.

JOINT MEETING WITH THE SECTION ON EXPERIMENTAL MEDICINE AND THERAPEUTICS IN BOYS AND GIRLS GYMNASIUM, HIGH SCHOOL OF COMMERCE

SYMPOSIUM ON ANTIBIOTICS

A New Method for Treatment of Brucellosis (Combined Use of Aureomycin and Dihydrostreptomycin).
WALLACE E. HERRELL, Rochester, Minn., and TRACY E. BARBER, Austin, Minn.
Discussion to be opened by K. T. MEYER, San Francisco, and C. WESLEY EISELE, Chicago.

Speculations on the Mechanism of Cure of Subacute Bacterial Endocarditis. THOMAS H. HUNTER, St. Louis.

Revision of Diagnostic Criteria and Therapeutic Technics in Subacute Bacterial Endocarditis. CHARLES K. FRIEDBERG, New York.
Discussion on papers of Drs. Hunter and Friedberg to be opened by ARTHUR L. BLOOMFIELD and ERNEST JAWETZ, San Francisco.

SYMPOSIUM ON TREATMENT OF DISEASES OF THE PACIFIC

Chemotherapy of Filariasis Bancrofti Under Field Conditions. JAMES I. KNOTT, San Diego, Calif.

Current Status of Therapy in Leprosy.
FREDERICK A. JOHANSEN and PAUL T. ERICKSON, Carville, La.

Modern Treatment of Plague. KARL F. MEYER, San Francisco.

Diagnosis and Treatment of Q Fever. WILLIAM H. CLARK, Berkeley, Calif.
Discussion on papers of Dr. Knott, Drs. Johansen and Erickson and Drs. Meyer and Clark to be opened by GEORGE T. HARRELL, Winston-Salem, N. C.

SECTION ON LARYNGOLOGY, OTOLOGY AND RHINOLOGY

MEETS IN AUDITORIUM OF CALIFORNIA HALL

OFFICERS OF SECTION

Chairman—WILLIAM H. JOHNSON, Santa Barbara, Calif.
Vice Chairman—HAROLD L. HICKEY, Denver.
Secretary—J. MILTON ROBB, Detroit.
Executive Committee—FLETCHER D. WOODWARD, Charlottsville, Va.; HENRY B. ORTON, Newark, N. J.; WILLIAM H. JOHNSTON, Santa Barbara, Calif.

Wednesday, June 28—2. p. m.

Complicated Fractures of the Maxillas. WILLIAM A. MCNICHOLS, Dixon, Ill.
Discussion to be opened by RUSSELL M. DECKER, Pasadena, Calif., and GEORGE A. FRIEDMAN, New York.

Nasopharyngeal Malignancy: An Overlooked Condition. HAROLD L. HICKEY, Denver.
Discussion to be opened by H. JAMES HARA, Los Angeles, and ROBERT C. MCNAUGHT, San Francisco.

The Relationship Between Tonsil and Adenoid Operations and Cleft Palate. HUGH GIBSON BEATTY, Columbus, Ohio.
Discussion to be opened by EDWARD DANIEL KING, Los Angeles.

Radiocobalt in Otolaryngology. LEWIS FRANCIS MORRISON, San Francisco.
Discussion to be opened by BERTRAM V. A. LOW-BEER, San Francisco.

Importance of Bronchial Involvement in Primary Tuberculosis of Childhood.
HERMAN I. LAFF, ALLAN HURST and ARTHUR ROBINSON, Denver.
Discussion to be opened by MERVIN C. MYERSON, Beverly Hills, Calif., and PAUL C. SAMSON, Oakland, Calif.

Thursday, June 29—2 p. m.

EXECUTIVE SESSION

ELECTION OF OFFICERS

Chairman's Address: Modern Trends of Surgery and Treatment in Otolaryngology. WILLIAM H. JOHNSTON, Santa Barbara, Calif.

Skull Anomalies. ARTHUR C. JONES, Boise, Idaho.
Discussion to be opened by GUY L. BOYDEN, Portland, Ore., and GILBERT ROY OWEN, Los Angeles.

Benign and Malignant Lesions of the Paranasal Sinuses. JOHN F. TOLAN, Seattle.
Discussion to be opened by WALTER P. WORK, San Francisco, and GEORGE W. OLSON, Fresno, Calif.

Role of Tracheotomy for the Prevention of Pulmonary Complications in the Postoperative and Severely Debilitated Patient. JOSEPH P. ATKINS, Philadelphia.
Discussion to be opened by JOEL J. PRESSMAN, Beverly Hills, Calif., and JULIUS A. WEBER, Seattle.

Tonsillectomies and Poliomyelitis. ALDEN H. MILLER, Los Angeles.
Discussion to be opened by ROBERT C. MARTIN, San Francisco, and VICTOR GOODHILL, Los Angeles.

SECTION ON MISCELLANEOUS TOPICS

SESSIONS ON MILITARY MEDICINE AND SURGERY

MEETS IN WHITE ROOM OF MASONIC TEMPLE

OFFICERS OF SESSIONS

Chairman—WENDELL G. SCOTT, St. Louis.
Vice Chairman—WILLIAM R. LOVELACE II, Albuquerque, N. Mex.
Secretary—WILLIAM S. STONE, Washington, D. C.

Wednesday, June 28—9 a. m.

Military Medicine and Surgery as a Specialty.
JOEL T. BOONE, Washington, D. C.

Discussion to be opened by HOWARD A. RUSK, New York, and I. S. RAVDIN, Philadelphia.

Medical Problems Encountered in Atomic Bomb Explosions. JAMES P. COONEY, Washington, D. C.

Discussion to be opened by ANDREW H. DOWDY, Los Angeles, and SHIELDS WARREN, Boston.

Treatment of High Intensity Thermal Burns.
EVERETT I. EVANS, Charlottesville, Va.

Discussion to be opened by JAMES BARRETT BROWN, St. Louis, and EDWIN J. PULASKI, San Antonio, Texas.

Treatment of Radiation Injuries.
J. GARROTT ALLEN, Chicago.

Discussion to be opened by STAFFORD L. WARREN, San Francisco, and EUGENE P. CRONKITE, Bethesda, Md.

Stress as a Factor in the Production of Neuropsychiatric Diseases. DONALD W. HASTINGS, Minneapolis.

Discussion to be opened by FREDERICK R. HANSON, Montreal, Canada, and DAVID A. BOYD JR., Rochester, Minn.

Civilian Defense Planning.
NORVIN C. KIEFER, Washington, D.C.

Discussion to be opened by JAMES C. SARGENT, Milwaukee, and ROBERT H. FLINN, Washington, D. C.

Thursday, June 29—9 a. m.

Medical Problems in Chemical Warfare.
JOHN R. WOOD, Army Chemical Center, Md.

Discussion to be opened by FRANKLIN C. MCLEAN, Chicago, and GEORGE M. LYON, Washington, D. C.

Medical Research and Development in the Armed Forces.
GEORGE E. ARMSTRONG, Washington, D.C.

Discussion to be opened by L. T. COGGESHALL and A. C. IVY, Chicago.

Medical Problems Encountered in Undersea Craft.
H. L. PUGH, Washington, D. C.

Discussion to be opened by O. D. YARBROUGH and HOWARD T. KARSNER, Washington, D. C.

Communicable Disease Problems in the Armed Forces During Peace and War.
JOSEPH E. SMADEL, Washington, D. C.

Discussion to be opened by NORMAN TOPPING, Washington, D. C., and H. A. REIMANN, Philadelphia.

Effects of Air Transportation on Clinical Conditions: Analysis of 16,000 Case Reports in 1949.
B. A. STRICKLAND and J. A. RAFFERTY, Randolph Field, Texas.

Discussion to be opened by WALLACE H. GRAHAM, Washington, D. C., and W. R. LOVELACE II, Albuquerque, N. Mex.

Military Medicine and Its Relation to American Medicine. RICHARD L. MEILING, Washington, D. C.

Discussion to be opened by GEORGE E. ARMSTRONG, C. A. SWANSON and HARRY G. ARMSTRONG, Washington, D. C.

SECTION ON NERVOUS AND MENTAL DISEASES

MEETS IN BLACK ROOM OF MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—FREDERICK P. MOERSCH, Rochester, Minn.
Vice Chairman—A. E. BENNETT, Berkeley, Calif.
Secretary—FRANCIS M. FORSTER, Philadelphia.
Executive Committee—A. R. VONDERAHE, Cincinnati; FRANCIS J. GERTY, Chicago; FREDERICK P. MOERSCH, Rochester, Minn.

Wednesday, June 28—9 a. m.

Traumatic Neurosis, Compensation Neurosis or Attitudinal Pathosis? GORDON R. KAMMAN, St. Paul.

Discussion to be opened by GEORGE N. RAINES, Bethesda, Md., and MORRIS J. TISSENBAUM, Brooklyn.

Transorbital Leukotomy in a State Hospital Program.
MATTHEW T. MOORE, Philadelphia, and RALPH L. HILL and WILBUR M. LUTZ, Warnersville, Pa.

Discussion to be opened by WALTER FREEMAN, Washington, D. C., and MARGARET A. KENNARD, Portland, Ore.

The Attitude of the Physician. LEO H. BARTEMEIER, Detroit.

Discussion to be opened by KARL M. BOWMAN, San Francisco, and HERBERT S. RIPLEY, Seattle.

Psychiatric Team Work: An Integrated Therapy.
ESTHER BOGEN TIETZ and MARTIN GROTJAHN, Los Angeles.

Discussion to be opened by PHILIP SOLOMON, Beverly Hills, Calif., and CARL H. JONAS, San Francisco.

Recent Biochemotherapeutic Developments in Psychiatry. JOHAN H. W. VAN OPHUIJSEN, New York.

Discussion to be opened by A. E. BENNETT, Berkeley, Calif., and EDWIN F. GILDEA, St. Louis.

Personality Structure in Relation to Antabuse Therapy of Alcoholism.
PAUL W. DALE and FRANKLIN G. EBAUGH, Denver.

Discussion to be opened by KENNETH E. APPEL, Philadelphia, and DAVID A. BOYD, Rochester, Minn.

Thursday, June 29—9 a. m.

EXECUTIVE SESSION

ELECTION OF OFFICERS

Chairman's Address: Neurologic Manifestations Associated with Dissecting Aneurysm of the Aorta.
FREDERICK P. MOERSCH, Rochester, Minn.

Recent Advances in the Treatment of Migraine: A Review.
ARNOLD P. FRIEDMAN and THEODORE J. C. VON STORCH, New York.

Discussion to be opened by CARO W. LIPPMAN, San Francisco, and E. MILES ATKINSON, New York.

Heredity of Epilepsy as Told by Twins.
WILLIAM G. LENNOX, Boston.

Discussion to be opened by KNOX H. FINLEY and ROBERT B. AIRD, San Francisco.

Cerebral Area Essential to Consciousness.
GEORGE N. THOMPSON and J. M. NIELSEN, Los Angeles.

Discussion to be opened by PERCIVAL BAILEY, Chicago, and FRED H. HESSER, Iowa City.

Factors Influencing the Development of Cerebral Vascular Accidents.
GEORGE WILSON, CHARLES RUPP, HELENA E. RIGGS and WILLIAM W. WILSON, Philadelphia.

Discussion to be opened by WALTER F. SCHALLER and EDWIN B. BOLDREY, San Francisco.

Management of Acute Poliomyelitis and Respiratory Insufficiency.
FRED PLUM and HAROLD G. WOLFF, New York.
Discussion to be opened by JOE R. BROWN, Rochester, Minn., and ROLAND P. MACKAY, Chicago.

Friday, June 30—9 a. m.

Surgical Management of Cerebrovascular Accidents.
E. S. GURDJIAN and JOHN E. WEBSTER, Detroit.
Discussion to be opened by HOWARD C. NAFFZIGER and JOHN E. ADAMS, San Francisco.

Intracranial Angiography.
WILLIAM J. GERMAN, New Haven, Conn.; WILLIAM B. SEAMAN, St. Louis; HARVEY A. HUMPHREY, New Haven, Conn., and W. RANDOLPH PAGE, Hartford, Conn.
Discussion to be opened by EDWIN B. BOLDREY, San Francisco, and R. B. RANEY, Los Angeles.

Treatment of Spontaneous Subarachnoid Hemorrhage.
LESTER A. MOUNT, New York.
Discussion to be opened by BERNARD J. ALPERS, Philadelphia, and TRACY J. PUTNAM, Beverly Hills, Calif.

Surgical Therapy of Psychomotor Epilepsy.
PERCIVAL BAILEY and FREDERIC A. GIBBS, Chicago.
Discussion to be opened by A. EARL WALKER, Baltimore, and HUGH W. GAROL, San Francisco.

Intramedullary Tumors of the Spinal Cord and Gliomas of the Intradural Filum Terminale: The Fate of Patients Who Have These Tumors.
HENRY W. WOLTMAN, JAMES W. KERNOHAN, WINCHELL McK. CRAIG and A. W. ADSON, Rochester, Minn.
Discussion to be opened by WARD W. WOOD, San Diego, Calif., and ARTHUR A. WARD JR., Seattle.

Management of Residuals of Injuries to the Spinal Cord and Cauda Equina.
LEWIS J. POLLOCK, BENJAMIN BOSHES, ISADORE FINKELMAN, HERMAN CHOR, ALEX J. ARIEFF, MEYER BROWN, KNOWLTON E. BARBER and JOSEPH G. KOSTRUBALA, Chicago, and LOUIS B. NEWMAN and BENJAMIN H. KESSEL, Hines, Ill.
Discussion to be opened by HANS REESE, Madison, Wis., and L. W. FREEMAN, Indianapolis.

SECTION ON OBSTETRICS AND GYNECOLOGY

MEETS IN AUDITORIUM OF VETERANS WAR MEMORIAL

OFFICERS OF SECTION

Chairman—JAMES R. BLOSS, Huntington, W. Va.
Vice Chairman—BERNARD J. HANLEY, Los Angeles.
Secretary—ARTHUR B. HUNT, Rochester, Minn.
Executive Committee—WILLIAM F. MENGERT, Dallas, Texas; LEROY A. CALKINS, Kansas City, Kan.; JAMES R. BLOSS, Huntington, W. Va.

Wednesday, June 28—2 p. m.

Application of Physiologic and Pathologic Principles to the Surgery of the Ovary.
EMIL NOVAK, Baltimore.
Discussion to be opened by LUDWIG A. EMGE, San Francisco, and LYMAN W. MASON, Denver.

Pseudocyesis: A Psychosomatic Study in Gynecology.
PAUL H. FRIED and A. E. RAKOFF, Philadelphia.
Discussion to be opened by DAVID A. BOYD, Rochester, Minn., and IRVING STEIN SR., Chicago.

Management of Pregnancy and Delivery Following Cesarean Section.
ROBERT A. COSGROVE, Jersey City, N. J.
Discussion to be opened by WILLIAM G. THOMPSON, Hollywood, Calif.; ROBERT A. JOHNSTON, Houston, Texas, and HOBART M. KELLY, Riverside, Calif.

Physiologic Therapy for Urinary Stress Incontinence.
ARNOLD H. KEGEL, Los Angeles.

Selection of Methods and Technics for Surgical Correction of Stress Incontinence.
VIRGIL S. COUNSELLER, Rochester, Minn.
Discussion on papers of Drs. Kegel and Counseller to be opened by EDWARD G. JONES and LOWELL F. BUSHNELL, Los Angeles, and DANIEL G. MORTON, San Francisco.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

Chairman's Address: Causes of Fear Among Obstetric Patients. JAMES R. BLOSS, Huntington, W. Va.

Endocrine Patterns in Term Pregnancy After Abortion.
GEORGEANNA SEEGAR-JONES, Baltimore.
Discussion to be opened by JEAN PAUL PRATT, Detroit, and PENDLETON TOMPKINS, San Francisco.

The Problem of Cervical Stump Carcinoma.
CHARLES H. HENDRICKS, Columbus, Ohio.
Discussion to be opened by RUSSELL R. DE ALVAREZ, Seattle, and CHARLES E. McLENNAN, San Francisco.

Detection of Pelvic Cancer. HOWARD W. JONES, Baltimore.
Discussion to be opened by HERBERT F. TRAUT, San Francisco, and FREDERICK H. FALLS, River Forest, Ill.

Friday, June 30—2 p. m.

JOINT MEETING WITH THE SECTION ON ANESTHESIOLOGY

JAMES R. BLOSS, Huntington, W. Va., Presiding

Choice of Anesthesia for Vaginal Surgical Procedures.
A. E. MORRISON and CHARLES F. McCUSKEY, Los Angeles.
Discussion to be opened by DONALD W. DE CARLE, San Francisco, and BRUCE M. ANDERSON, Oakland, Calif.

SYMPOSIUM ON PAIN RELIEF IN OBSTETRICS

FREDERIC W. CLEMENT, Toledo, Ohio, Moderator

Choices of Analgesia During the First Stage of Labor.
CURTIS J. LUND, New Orleans.

Choice of Anesthesia for Normal Delivery.
EARLE W. CARTWRIGHT, Pasadena, Calif.

Choices of Anesthesia for Operative Vaginal and Abdominal Delivery.
R. J. WHITACRE and P. G. CRESSMAN, East Cleveland, Ohio.
Discussion on papers of Dr. Lund, Dr. Cartwright and Drs. Whitacre and Cressman to be opened by SCOTT M. SMITH, Salt Lake City; DONALD C. TOLLEFSON, Los Angeles; ROBERT A. HINGSON, Baltimore, and WILLIAM H. MASTERS, St. Louis.

SECTION ON OPHTHALMOLOGY

MEETS IN AUDITORIUM OF CALIFORNIA HALL

OFFICERS OF SECTION

Chairman—A. RAY IRVINE, Beverly Hills, Calif.
Vice Chairman—ALBERT N. LEMOINE, Kansas City, Mo.
Secretary—TRYGVE GUNDERSEN, Boston.
Executive Committee—EVERETT L. GOAR, Houston, Texas; M. HAYWARD POST, St. Louis; A. RAY IRVINE, Beverly Hills, Calif.

Wednesday, June 28—9 a. m.

Chairman's Address. A. RAY IRVINE, Beverly Hills, Calif.

Operative Results in Juvenile Glaucoma from a Pathologic Standpoint. BRITTAIN F. PAYNE, New York.

V 19

Clinical Application of Night Vision Tests.
WILLIAM J. HOLMES, Honolulu, Hawaii.

Superficial Punctate Keratitis.
PHILLIPS THYGESON, San Jose, Calif.

Choked Disk and Other Types of Edema of the Nerve Head. PLACIDUS J. LEINFELDER, Iowa City.

Dislocated Lens. P. ROSS MCDONALD, Philadelphia.

Thursday, June 29—9 a. m.

EXECUTIVE SESSION

ELECTION OF OFFICERS

Complications and Their Solutions in a Series of Over One Hundred and Twenty Movable Post Enucleation Implants Performed During a Period of Thirty-Seven Months. WILLIAM STONE JR., Boston.

Greater Superficial Petrosal Neurectomy for the Relief of Chronic Bullous Keratitis.
LORAND V. JOHNSON and WILLIAM A. NOSIK, Cleveland.

Diagnosis of Multiple Oculomotor Paralyses.
WILLIAM E. KREWSON III, Philadelphia.

Pituitary Adrenocorticotropic Hormone in the Treatment of Eye Diseases.
J. A. OLSON, E. H. STEFFENSEN, R. R. MARGULIS, R. W. SMITH and E. L. WHITNEY, Detroit.

Demonstration of New Instruments

Friday, June 30—9 a. m.

The Battle Against Blindness.
WALTER B. LANCASTER, Boston, and FRANKLIN M. FOOTE, New York.

Primary Massive Separation of the Retina in Infants and Children. PARKER HEATH, Boston.

Detachment and Aphakia. CHARLES L. SCHEPENS, Boston.

Objective Methods in the Investigation of Strabismus.
EMANUEL KRIMSKY, Brooklyn.

Retinal Correspondence in Patient with Small Degree of Strabismus. ARTHUR JAMPOLSKY, San Francisco.

Goniopuncture: A New Fistulizing Operation for Glaucoma. HAROLD G. SCHEIE, Philadelphia.

SECTION ON ORTHOPEDIC SURGERY

MEETS IN BLACK ROOM OF MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—JOSEPH S. BARR, Boston.
Vice Chairman—WALTER P. BLOUNT, Milwaukee.
Secretary—CHARLES N. PEASE, Chicago.
Executive Committee—J. WARREN WHITE, Greenville, S. C.; DAVID M. BOSWORTH, New York; JOSEPH S. BARR, Boston.

Wednesday, June 28—2 p. m.

Tarsal Anomalies and Peroneal Flat Foot.
FREDERICK S. WEBSTER, Lincoln, Neb., and WILLIAM M. ROBERTS, Gastonia, N. C.
Discussion to be opened by EARL D. MCBRIDE, Oklahoma City, and CHARLES YOUNG, Los Angeles.

Venous Thrombosis: Its Cause and Prevention.
ALTON OCHSNER, New Orleans.
Discussion to be opened by GEZA DE TAKATS, Chicago, and FRANCIS M. MCKEEVER, Los Angeles.

Fractures About the Elbow in Children.
WALTER P. BLOUNT, Milwaukee.
Discussion to be opened by VERNON P. THOMPSON, Los Angeles, and LEWIS M. OVERTON, Albuquerque, N. Mex.

Arthrodesis of Hip by Sliding Graft and Nail.
PHILIP WILES, London, England.

Studies of Displaced Capital Femoral Epiphysis.
MATHER CLEVELAND and DAVID M. BOSWORTH, New York; JOHN N. DALY, Rochester, N. Y., and WALLACE HESS, New York.
Discussion to be opened by ROBERT J. JOPLIN, Boston, and EDWARD L. COMPERE, Chicago.

New Procedure for Subluxation of the Distal End of the Ulna. FREDERICK LEE LIEBOLT, New York.
Discussion to be opened by H. RELTON MCCARROLL, St. Louis, and JOHN J. LOUTZENHEISER, San Francisco.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

Common Problems in the Fit and Alinement of the Above Knee Suction Socket Artificial Leg.
CHARLES O. BECHTOL, Oakland, Calif.
Discussion to be opened by ROBERT MAZET JR. and PAUL E. MCMASTER, Los Angeles.

Repair of Surface Defects of the Foot.
JAMES BARRETT BROWN, St. Louis.
Discussion to be opened by J. WARREN WHITE, Honolulu, Hawaii, and GUY A. CALDWELL, New Orleans.

Chairman's Address. JOSEPH S. BARR, Boston.

Complications of Intramedullary Fixation of Fractures of the Femur.
WALTER G. STUCK and MILTON S. THOMPSON, San Antonio, Texas.
Discussion to be opened by RALPH SOTO-HALL, San Francisco, and J. VERNON LUCK, Los Angeles.

Fractures of Dorsal and Lumbar Vertebrae.
OBREN D. BAAB and M. BECKETT HOWORTH, New York.
Discussion to be opened by JOSEPH M. JANES, Rochester, Minn., and DONALD KING, San Francisco.

Friday, June 30—2 p. m.

Fibroelastic Diathesis. CARL E. BADGLEY, Ann Arbor, Mich.
Discussion to be opened by STURE A. M. JOHNSON, Madison, Wis., and HAROLD E. CROWE, Los Angeles.

Experimental Study of the Effect of Pressure on the Healing of Bone Grafts.
LEE T. FORD, JAMES O. LOTTES and J. ALBERT KEY, St. Louis.

Clinical Significance of Contact-Compression Factor in Bone Surgery.
GEORGE W. N. EGGERS, Galveston, Texas.
Discussion on papers by Drs. Ford, Lottes and Key and Dr. Eggers to be opened by LEROY C. ABBOTT, San Francisco, and ARCH F. O'DONOGHUE, Sioux City, Iowa.

Simple Method of Bone Grafting for Nonunion of the Tibia. DONALD S. MILLER, Chicago.
Discussion to be opened by HAMILTON I. BARNARD, Denver, and I. S. MCREYNOLDS, Houston, Texas.

Experimental and Clinical Investigations of Peripheral Nerve Injuries of the Upper Extremities.
GEORGE PERRET, Iowa City.
Discussion to be opened by LOYAL DAVIS, Chicago, and STERLING BUNNELL, San Francisco.

Spontaneous Compression of the Medial Nerve at the Wrist. GEORGE S. PHALEN, Cleveland.
Discussion to be opened by WALTER C. GRAHAM, Santa Barbara, Calif., and CLARENCE A. LUCKEY, Stockton, Calif.

SECTION ON PATHOLOGY AND PHYSIOLOGY

MEETS IN AUDITORIUM OF MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—Frank W. Konzelmann, Atlantic City, N. J.
Vice Chairman—A. S. Giordano, South Bend, Ind.
Secretary—Edwin F. Hirsch, Chicago.
Executive Committee—Alvin G. Foord, Pasadena, Calif.; George E. Wakerlin, Chicago; Frank W. Konzelmann, Atlantic City, N. J.

Wednesday, June 28—2 p. m.

Important Elements in the Initial Investigation of Sudden and Violent Deaths. Richard Ford, Boston.
Discussion to be opened by Lewis J. Regan, Los Angeles, and Alvin G. Foord, Pasadena, Calif.

Clinical Physiology of Sodium and Potassium. William Hoffman, Chicago.
Discussion to be opened by Helen E. Martin, Pasadena, Calif., and A. C. Corcoran, Cleveland.

Bacterial Transmutations Induced by Rhythmic Exposure to High Temperature.
R. R. Spencer and M. B. Melroy, Bethesda, Md.

Serum Electrolyte Changes in Acute Pancreatitis.
Hugh A. Edmondson and Ralph E. Homann, Los Angeles.
Discussion to be opened by A. H. Baggenstoss, Rochester, Minn.

Thursday, June 29—2 p. m.

BUSINESS MEETING

ELECTION OF OFFICERS

Chairman's Address. Frank W. Konzelmann, Atlantic City, N. J.

Pulmonary Vascular Bed Measured by Perfusion.
Alvin J. Cox and John S. Cherbedes, San Francisco.
Discussion to be opened by Harry J. Corper, Denver, and Myron Prinzmetal, Beverly Hills, Calif.

Effects of Urethane in Normal Animals.
F. K. Mostofi and C. D. Larsen, Bethesda, Md.
Discussion to be opened by Hugh Grady, Washington, D. C., and Michael Shimkin, San Francisco.

Thyroiditis. Stuart Lindsay, San Francisco.
Discussion to be opened by J. F. Rinehart, San Francisco, and C. Alexander Hellwig, Wichita, Kan.

Subclinical Histoplasmosis: Gastrointestinal Histoplasmosis of Children. Alan Raftery, Detroit.
Discussion to be opened by F. W. Hartman, Detroit, and Robert J. Parsons, Oakland, Calif.

Observations on the Pathology of 3,000 Cancers of the Skin. Charles Phillips, Temple, Texas.

Friday, June 30—9 a. m.

JOINT MEETING WITH SECTION ON GASTRO-ENTEROLOGY AND PROCTOLOGY

Therapy of Amebic Dysentery. J. A. Bargen, Rochester, Minn.

Acute and Chronic Pancreatitis. A. C. Ivy, Chicago.

Problems on Gastrointestinal Necrosis. Grant Laing, Chicago.

Nutritional Deficiencies.
Tom D. Spies and Robert E. Stone, Birmingham, Ala.
Discussion to be opened by Dwight L. Wilbur, San Francisco.

SECTION ON PEDIATRICS

MEETS IN AUDITORIUM OF HIGH SCHOOL OF COMMERCE

OFFICERS OF SECTION

Chairman—Margaret Mary Nicholson, Washington, D. C.
Vice Chairman—Adolph G. de Sanctis, New York.
Secretary—Wyman C. C. Cole, Detroit.
Executive Committee—Oscar Reiss,* Los Angeles; Woodruff L. Crawford, Rockford, Ill.; Margaret Mary Nicholson, Washington, D. C.

Wednesday, June 28—9 a. m.

Childhood Hypothyroidism: Its Genesis. William A. Reilly, Little Rock, Ark.
Discussion to be opened by Hans Lisser, San Francisco, and A. Wilmot Jacobson, Buffalo.

Antihistamines in the Treatment of Allergic Diseases in Children. Albert V. Stoesser, Minneapolis.
Discussion to be opened by Norman W. Clein, Seattle, and Morton Zall, Los Angeles.

Studies of Coxsackie Viruses.
Edward A. Beeman, Charles Armstrong and Roger M. Cole, Bethesda, Md.
Discussion to be opened by Gordon Meiklejohn and Edwin H. Lennette, Berkeley, Calif.

A Three Year Study of a Compulsory Rooming-In Program for Newborn Infants. Angus M. McBryde, Durham, N. C.
Discussion to be opened by Leo H. Bartemeier, Detroit, and F. Crawford Bost, San Francisco.

Chemotherapy in Childhood Tuberculosis. William Berenberg, Boston.
Discussion to be opened by J. A. Myers, Minneapolis, and Harry F. Dietrich, Beverly Hills, Calif.

Chloramphenicol Therapy of Typhoid in Children.
Joseph Greengard, Lawrence Breslow and Albert Milzer, Chicago.
Discussion to be opened by Ralph V. Platou, New Orleans, and Edward B. Shaw, San Francisco.

Accidents, Childhood's Greatest Threat, Are Preventable. Harry F. Dietrich, Beverly Hills, Calif.
Discussion to be opened by Vernon W. Spickard, Seattle.

Thursday, June 29—9 a. m.

BUSINESS MEETING

ELECTION OF OFFICERS

Chairman's Address: Can the Pediatrician Influence Juvenile Delinquency? Margaret Mary Nicholson, Washington, D. C.

Effect of a Hormone of the Adrenal Cortex, Cortisone, 17-Hydroxy-11-Dehydrocorticosterone (Compound E) and of Pituitary Adrenocorticotropic Hormone (ACTH) on the Acute Phase of Rheumatic Fever. Arlie R. Barnes, Rochester, Minn.
Discussion to be opened by Stanley Gibson and Albert Dorfman, Chicago, and Edward W. Boland, Los Angeles.

Asphyxia Neonatorum: A Preliminary Report on a New Method of Resuscitation. Allan P. Bloxsom, Houston, Texas.
Discussion to be opened by Arthur H. Parmalee, Beverly Hills, Calif., and Robert A. Johnston, Houston, Texas.

Differential Diagnosis of Juvenile Rheumatoid Arthritis with Particular Reference to Rheumatic Fever.
M. P. Schultz, E. J. Rose and F. R. Leyva, Washington, D. C.
Discussion to be opened by Stanley Gibson, Chicago.

*Deceased

V 19

Sodium and Potassium Excretion in Renal Disease.
RICHARD W. LIPPMAN, Los Angeles.
Discussion to be opened by F. S. SMYTH, San Francisco.

Coccidioidomycosis in Children.
CHESTER I. MEAD, Bakersfield, Calif.
Discussion to be opened by CHARLES E. SMITH, San Francisco.

PEDIATRIC ANNUAL BANQUET AT 6:30 P. M., HOTEL FAIRMONT

Friday, June 30—9 a. m.

JOINT MEETING WITH THE SECTION ON GENERAL PRACTICE

Intestinal Obstruction in the Newborn Infant.
OSWALD S. WYATT, Minneapolis
Discussion to be opened by CLIFFORD D. BENSON, Detroit, and CLIFFORD SWEET, Oakland, Calif.

Management of Acute Meningitis.
J. HARRY MURPHY, Omaha.
Discussion to be opened by HULDA E. THELANDER, San Francisco.

Diagnostic Drifts, Deceptions and Common Misses.
M. PINSON NEAL, Columbia, Mo.
Discussion to be opened by OSCAR B. HUNTER, Washington, D. C., and J. B. BILDERBACK, Portland, Ore.

Congenital Megacolon or Hirschsprung's Disease: Its Successful Management by Surgical or Medical Means in Nine Cases.
ALEXANDER H. BILL JR., Seattle.
Discussion to be opened by FREDERICK C. MOLL, Seattle, and L. E. HARRIS, Rochester, Minn.

Behavior Disturbances in Epileptic Children.
CHARLES BRADLEY, Portland, Ore.
Discussion to be opened by WILLIAM W. BELFORD, San Diego, Calif., and E. D. ANDERSON, Minneapolis.

Treatment of Bronchial Allergy in Children.
BEN F. FEINGOLD, Los Angeles.
Discussion to be opened by RALPH BOWEN, Houston, Texas; ALBERT H. ROWE, Oakland, Calif., and FRED W. WITTICH, Minneapolis.

SECTION ON PHYSICAL MEDICINE AND REHABILITATION

MEETS IN HALL 1 OF MASONIC TEMPLE

OFFICERS OF SESSION

Chairman—FRANK H. KRUSEN, Rochester, Minn.
Vice Chairman—GEORGE MORRIS PIERSOL, Philadelphia.
Secretary—HOWARD A. RUSK, New York.

Wednesday, June 28—2 p. m.

Practical Aids in the Rehabilitation of the Hemiplegic.
LEONARD J. YAMSHON, Los Angeles.

Application of Muscle Physiology to Therapeutic Exercise.
DONALD J. ERICKSON and KHALIL G. WAKIM, Rochester, Minn.

Comprehensive Physical Medicine for Degenerative Joint Disease. WALTER M. SOLOMON, Cleveland.

Place of Trihexyphenidyl and Mephenesin in Spastic Disorders.
WARD H. SCHULTZ and ABRAHAM EFFRON, New York.

The Community Rehabilitation Center and the General Practitioner. ARTHUR C. JONES, Portland, Ore.

Medical Physics, Physical Medicine and Rehabilitation.
WALTER J. ZEITER, SHELBY G. GAMBLE and OTTO GLASSER, Cleveland.

A Study of the Adjustment of 500 Persons Over 16 Years of Age with Disabilities Resulting from Poliomyelitis. GEORGE G. DEAVER, New York.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

Chairman's Address: The Scope and Future of Physical Medicine and Rehabilitation.
FRANK H. KRUSEN, Rochester, Minn.

Physical Medicine and Rehabilitation in Medical Education. HOWARD A. RUSK, New York.

Retraining Patients with Brain Damage.
JOE R. BROWN, Rochester, Minn.

Amputee Rehabilitation.
THOMAS J. CANTY, Mare Island, Vallejo, Calif.

Intermittent Treatment of Poliomyelitis with Progressive Resistance Exercise. SEDGWICK MEAD, St. Louis.

The Concept of "Acceptance" in Physical Rehabilitation. MORRIS GRAYSON, New York.

Friday, June 30—2 p. m.

SYMPOSIUM ON PHYSICAL MEDICINE AND REHABILITATION FOR PARAPLEGICS

Urologic Aspects of Rehabilitation in Spinal Cord Injuries. ERNEST BORS, Van Nuys, Calif.

Neurosurgery in the Rehabilitation of Paraplegics.
JOHN D. FRENCH, Van Nuys, Calif.

Reconstructive Surgery in Spinal Cord Injuries.
A. ESTIN COMARR, Van Nuys, Calif.

Physical Treatment and Rehabilitation of the Paraplegic Patient. HAROLD DINKEN, Denver.

SECTION ON PREVENTIVE AND INDUSTRIAL MEDICINE AND PUBLIC HEALTH

MEETS IN WHITE ROOM, MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—C. N. NEUPERT, Madison, Wis.
Vice Chairman—RUTHERFORD T. JOHNSTONE, Los Angeles.
Secretary—JEAN S. FELTON, Oak Ridge, Tenn.
Executive Committee—ROBERT H. RILEY, Baltimore; OSCAR A. SANDER, Milwaukee; C. N. NEUPERT, Madison, Wis.

Wednesday, June 28—2 p. m.

SYMPOSIUM ON THE AMERICAN WORKER. HOW CAN INDUSTRIAL MEDICINE MEET HIS NEEDS?

RALPH CHRISTOPHER LEGGO, Crockett, Calif., Moderator

Viewpoint of the Personnel Administrator.
HIRAM S. HALL, New York.

Viewpoint of the Sociologist.
DAVIS MCENTIRE, Berkeley, Calif.

Viewpoint of the Psychiatrist.
KARL M. BOWMAN, San Francisco.

Viewpoint of the Physician in Industry.
HENRY H. KESSLER, West Orange, N. J.

Viewpoint of the Union. HARRY READ, Washington, D. C.

Viewpoint of Religion. RICHARD HENRY, Knoxville, Tenn.
Discussion on symposium to be opened by J. M. KIMMICH, Camden, N. J., and LEON LEWIS, Berkeley, Calif.

SYMPOSIUM ON THE SPECIALIST LOOKS AT EVERY-DAY MEDICAL CARE IN INDUSTRY

CHESTER L. SAMUELSON, Lockport, N. Y., Moderator

Dermatologist. E. A. LEVIN, San Francisco.
Internal Medicine:
Cardiology. B. M. OVERHOLT, Knoxville, Tenn.
Gastro-Enterology. H. S. VAN ORDSTRAND, Cleveland.
Ophthalmologist. W. E. BORLEY, San Francisco.
Orthopedist. H. E. BILLIG JR., Los Angeles.
Psychiatrist. F. O. DUE, Oakland, Calif.

Discussion on symposium to be opened by M. R. BURNELL, Detroit; L. R. CHANDLER, San Francisco, and A. H. WHITTAKER, Detroit.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

Exhaustion in the Young Business Executive: Diagnosis and Treatment.
SIDNEY A. PORTIS, IRVING H. ZITMAN and CHARLES H. LAWRENCE, Chicago.

Discussion to be opened by W. P. SHEPARD, San Francisco.

Statistics Can Tell the Story of Industrial Medicine.
C. C. HURD, New York.

Discussion to be opened by J. A. RAFFERTY, Randolph Field, Texas.

DEMONSTRATION SYMPOSIUM ON WHAT ARE THE DYNAMICS OF INDUSTRIAL HYGIENE

JAMES H. STERNER, Rochester, N. Y., Moderator

Presentation of an Unidentified Occupational Case History. R. J. HASTERLIK, Chicago.
Surveying the Plant. D. J. LAUER, Cincinnati.
Studying the Environment. F. E. AILEY, Richland, Wash.
Chemical Analysis. F. R. HOLDEN, San Francisco.
Maximum Allowable Concentrations. H. H. HUDSON, Nashville, Tenn.
Control:
Medical. R. A. KEHOE, Cincinnati.
Environmental. B. F. POSTMAN, New York.

Discussion on symposium to be opened by R. T. JOHNSTONE, Los Angeles, and A. J. LANZA, New York.

Friday, June 30—2 p. m.

Chairman's Address: Does the Health Officer Now Have Status? C. N. NEUPERT, Madison, Wis.

SYMPOSIUM ON SCREENING TECHNICS FOR THE DISCOVERY OF CHRONIC DISEASE IN THE ADULT POPULATION

HENRIETTA HERBOLSHEIMER, Springfield, Ill., Moderator

DWIGHT M. BISSELL, San Jose, Calif.
LESTER BRESLOW, Berkeley, Calif.
C. KELLY CANELO, San Jose, Calif.
VLADO A. GETTING, Boston.

Discussion on symposium to be opened by L. E. BURNEY, Indianapolis, and W. E. HALVERSON, San Francisco.

Incidence of Trichinella Infections in San Francisco, 1950. R. R. BEARD, San Francisco.

Discussion to be opened by FRANK R. QUEEN, Portland, Ore.

SYMPOSIUM ON Q FEVER

MALCOLM H. MERRILL, San Francisco, Moderator

R. J. HUEBNER and JOSEPH BELL, Bethesda, Md.
E. H. LENNETTE, Berkeley, Calif.
H. C. STOENNER, Hamilton, Mont.

Discussion on symposium to be opened by M. DOROTHY BECK and HARTWELL WELSH, Berkeley, Calif.

SECTION ON RADIOLOGY

MEETS IN HALL 2 OF MASONIC TEMPLE

OFFICERS OF SECTION

Chairman—U. V. PORTMANN, Cleveland.
Vice Chairman—J. C. DICKINSON, Tampa, Fla.
Secretary—PAUL C. HODGES, Chicago.
Executive Committee—W. WALTER WASSON, Denver; HARRY M. WEBER, Rochester, Minn.; U. V. PORTMANN, Cleveland.

Wednesday, June 28—9 a. m.

Chairman's Address: Cancer of the Breast; Classification of Cases and Criteria of Incurability. U. V. PORTMANN, Cleveland.
Nasopharyngeal Irradiation: The Relative Merits of Roentgen and Radium Therapy for Benign Conditions.
L. H. GARLAND, H. A. HILL, M. E. MOTTRAM and M. A. SISSON, San Francisco.
The Separate Neural Arch.
GEORGE G. ROWE and MAURICE B. ROCHE, St. Louis.
Accessory Sacroiliac Articulations. LEE A. HADLEY, Syracuse, N. Y.
Roentgen Examination of the Inferior Vena Cava by Contrast Methods. BERNARD J. O'LOUGHLIN, Minneapolis.
Pyelography as an Aid in Classification of Carcinoma of the Cervix.
RIEVA ROSH and PHILIP STRAX, New York.

Thursday, June 29—9 a. m.

BUSINESS SESSION

ELECTION OF OFFICERS

Artificial Radioactivity in the Therapy of Diseases of the Hematopoietic System with Comments on Radioactive Colloids.
JOHN G. GOFMAN and JOHN H. LAWRENCE, Berkeley, Calif.
Effects of Radiation on Bacteria.
R. LOWRY DOSSON and ROBERT WEATHERWAX, Berkeley, Calif.
Effects of Radiation on Iron Metabolism and Red Cell Formation.
THOMAS HENNESSY, W. F. BETHARD and REX L. HUFF, Berkeley, Calif.
Nucleic Acid Metabolism and Metabolism of C^{14} Labeled Compounds in Normal and Neoplastic Animals.
H. B. JONES and LOLA KELLY, Berkeley, Calif.
Present Status of Radioactive Iodine in Treatment of Thyroid Diseases.
JOHN BERTRAND and JAMES ROBERTSON, Berkeley, Calif.
Radiologic Use of Fast Proton, Deuteron and Alpha Particle Beams.
C. A. TOBIAS and H. O. ANGER, Berkeley, Calif.

Friday, June 30—9 a. m.

Roentgenologic Examination of the Colon Using Drainage and Negative Pressure, with Special Reference to the Early Diagnosis of Neoplasms.
F. E. TEMPLETON and E. A. ADDINGTON, Seattle.
Pneumoperitoneum in the Study of Pelvic Structures.
J. R. MAXFIELD JR., Dallas, Texas.
Occurrence of Bronchogenic Carcinoma in Congenital Cystic Emphysema of the Lungs: Review of the Literature and Report of Ten Cases.
EPHRAIM KOBOL, Downey, Ill.
Cerebral Cysticercosis.
GUILLERMO SANTIN, Mexico D.F., Mexico.
Hypertrophic Pyloric Stenosis. J. E. MILLER, Dallas, Texas.
Inflation of the Stomach with Double Contrast: A Roentgen Study.
FRANCIS F. RUZICKA and LEO G. RIGLER, Minneapolis.

SECTION ON SURGERY, GENERAL AND ABDOMINAL

MEETS IN AUDITORIUM OF VETERANS WAR MEMORIAL

OFFICERS OF SECTION

Chairman—MICHAEL E. DEBAKEY, Houston, Texas.
Vice Chairman—R. GLEN SPURLING, Louisville, Ky.
Secretary—I. RIDGWAY TRIMBLE, Baltimore.
Executive Committee—B. NOLAND CARTER, Cincinnati; WILLIAM F. MACFEE, New York; MICHAEL E. DE BAKEY, Houston, Texas.

Wednesday, June 28—9 a. m.

High Intensity, Radiant Energy (Flash) Burns.
HERMAN E. PEARSE and HARRY D. KINGSLEY, Rochester, N. Y.
Discussion to be opened by EVERETT I. EVANS, Richmond, Va., and LEON GOLDMAN, San Francisco.

Blood Volume in Health and Disease: A Neglected but Important Surgical Problem.
PHILIP B. PRICE, Salt Lake City.
Discussion to be opened by NORMAN E. FREEMAN, San Francisco and JOHN H. CLARK, Salt Lake City.

Conservative Management of Acute Cholecystitis.
ROBERT W. BUXTON and FREDERICK A. COLLER, Ann Arbor, Mich.
Discussion to be opened by G. LAWRENCE CHAPPIN, Los Angeles, and ALLEN M. BOYDEN, Portland, Ore.

Construction of a Substitute Bladder and Urethra.
R. K. GILCHRIST, J. W. MERRICKS, HOWARD HAMLIN and I. T. RIEGER, Chicago.
Discussion to be opened by FRANK HINMAN, San Francisco; EUGENE BRICKER, St. Louis, and WILLIAM WALLACE SCOTT, Baltimore.

Portacaval Shunt for Portal Hypertension: Follow-Up Results in Cases of Cirrhosis of the Liver.
ARTHUR H. BLAKEMORE, New York.
Discussion to be opened by HAMILTON SOUTHWORTH, New York, and C. STUART WELCH, Boston.

Current Methods of Diagnosis of Pheochromocytoma.
EVAN CALKINS, Baltimore.
Discussion to be opened by KEITH S. GRIMSON, Durham, N. C., and GRACE ROTH, Rochester, Minn.

Thursday, June 29—9 a. m.

ELECTION OF OFFICERS

Chairman's Address: Evaluation of Sympathectomy in Arteriosclerotic Peripheral Vascular Disease.
MICHAEL E. DEBAKEY, Houston, Texas.

Anatomic Basis for More Complete Surgical Sympathetic Denervation.
ALBERT KUNTZ and WILLIAM F. ALEXANDER, St. Louis.
Discussion to be opened by A. W. ADSON, Rochester, Minn., and PAUL G. FLOTHOW, Seattle.

Encephalographically Controlled Anesthesia in Abdominal Surgery.
CHARLES W. MAYO and ALBERT FAULCONER JR., Rochester, Minn.
Discussion to be opened by WILLIAM L. ESTES JR., Bethlehem, Pa.

Appraisal of Vagotomy for Peptic Ulcer After Seven Years.
LESTER R. DRAGSTEDT, EDWARD R. WOODWARD, EDWARD H. STOKER, HARRY A. OBERHELMAN JR., and CURTIS A. SMITH, Chicago.
Discussion to be opened by I. RIDGWAY TRIMBLE, Baltimore, and DAVID H. SPRONG JR., Santa Monica, Calif.

Present Status of the Surgical Treatment of Peptic Ulcer.
FRANK GLENN, New York.
Discussion to be opened by H. GLENN BELL, San Francisco, and I. S. RAVDIN, Philadelphia.

Friday, June 30—9 a. m.

Acute Abdominal Conditions of Infancy and Childhood.
WILLIAM J. NORRIS and DONALD F. BRAYTON, Los Angeles.
Discussion to be opened by H. GLENN BELL and LOREN R. CHANDLER, San Francisco.

Chloramphenicol and Aureomycin in Surgical Infections.
W. A. ALTEMEIER, Cincinnati.
Discussion to be opened by EDWIN J. PULASKI, San Antonio, Texas, and HORACE J. MCCORKLE, Los Angeles.

Malignancy in Adenomas of the Thyroid.
FRANK H. LAHEY and HUGH F. HARE, Boston.
Discussion to be opened by ROBERTSON WARD and FREDERICK L. REICHERT, San Francisco.

Carcinoma of the Esophagus.
JOHN H. GIBBON JR., and FRANK F. ALLBRITTEN JR., Philadelphia.
Discussion to be opened by LYMAN A. BREWER III and CARLETON MATHEWSON JR., San Francisco.

The Liver as a Factor in Experimental Renal Hypertension. LOYAL DAVIS and CARLOS A. TANTURI, Chicago.
Discussion to be opened by HOWARD C. NAFFZIGER, San Francisco, and HARRY GOLDBLATT, Los Angeles.

Tumors of the Parotid Gland.
DONALD E. ROSS and CLAUDE R. SWAIN, Los Angeles.
Discussion to be opened by CLARENCE E. NELSON and SAMUEL L. PERZIK, Los Angeles.

SECTION ON UROLOGY

MEETS IN BANQUET ROOM OF CALIFORNIA HALL

OFFICERS OF SECTION

Chairman—EDWARD N. COOK, Rochester, Minn.
Vice Chairman—HUGH J. JEWETT, Baltimore.
Secretary—EARL E. EWERT, Boston.
Executive Committee—REED M. NESBIT, Ann Arbor, Mich.; HAMILTON W. MCKAY, Charlotte, N. C.; EDWARD N. COOK, Rochester, Minn.

Wednesday, June 28—2 p. m.

Common Congenital Anomalies of the Urinary Tract.
EDGAR BURNS, New Orleans.

Advisability of Surgical Reversal of Sex in Females: Pseudohermaphroditism.
FRANK HINMAN JR., San Francisco.
Discussion on papers of Drs. Burns and Hinman to be opened by FRANK HINMAN, San Francisco, and JAY J. CRANE, Los Angeles.

Torsion of the Spermatic Cord in the Newborn: Two Instances of Spermatic Cord Tension in the Newborn Are Reported. CARL A. BJORN, Palo Alto, Calif.

Indication and Results of Resection of the Vesical Neck in Children.
T. LEON HOWARD and HENRY A. BUCHTEL, Denver.
Discussion to be opened by CARL E. BURKLAND, Sacramento, Calif., and MILEY B. WESSON, San Francisco.

Injury to the Ureter During Open Surgery: Diagnosis, Treatment and Results.
RALPH B. MULLENIX and ROBERT J. PRENTISS, San Diego, Calif.

Injury of the Ureter (Due to Surgery, Intraureteral Instrumentation and External Violence): Report of 41 Cases. CARL F. RUSCHE, Hollywood, Calif.

Bilateral Intramural Strictures of the Ureters After Transurethral Resection of the Prostate.
VINCENT J. O'CONOR, Chicago
Discussion to be opened by A. J. SCHOLL, Los Angeles, and G. J. THOMPSON, Rochester, Minn.

Thursday, June 29—2 p. m.

ELECTION OF OFFICERS

Chairman's Address: Misconceptions in Urology.
EDWARD N. COOK, Rochester, Minn.

Retropubic Prostatectomy: Report of 100 Consecutive Cases. JOHN R. HAND, Portland, Ore.

Significance of Serum Acid Phosphatase Determinations in the Diagnosis and Prognosis of Prostatic Cancer.
REED M. NESBIT, Ann Arbor, Mich.

Discussion to be opened by ELMER BELT, Los Angeles; THOMAS R. MONTGOMERY, Portland, Ore., and THOMAS E. GIBSON, San Francisco.

Excretory Urography: A Clinical Study.
GEORGE H. EWELL and HAROLD W. BRUSKEWITZ, Madison, Wis.

Evaluation of the Surgical Kidney Employing Translumbar Aortagraphy.
A. KELLER DOSS, Fort Worth, Texas, and HUMBERTO QUIRARTE, Mexico, D. F., Mexico.

Discussion to be opened by FRANCIS H. REDEWILL, San Francisco, and HAROLD A. O'BRIEN, Dallas, Texas.

Early Recognition and Treatment of Venous Thrombosis in Urologic Patients.
ORMOND S. CULP and JAMES BARRON, Detroit.

Use of Intravenous Alcohol in Surgical Patients.
J. KENNETH SOKOL and MARY KARP, Chicago.

Discussion to be opened by URBAN H. EVERSOLE, Boston, and THOMAS L. SCHULTZ, San Francisco.

Friday, June 30— 2 p. m.

Semen Studies and Infertility.
EDWARD T. TYLER, Los Angeles.

Prostatic Massage: Indications and Contraindications.
REX E. VAN DUZEN, Dallas, Texas.

Discussion on papers of Drs. Tyler and Van Duzen to be opened by LEWIS MICHELSON, San Francisco; M. JAMES WHITELAW, Phoenix, Ariz., and MILES GRIFFIN, Berkeley, Calif.

Correction of Vesical Obstruction Due to Hypertrophy of the Interureteric Ridge in the Male.
OSWALD SWINNEY LOWSLEY, New York.

Discussion to be opened by JOHN D. FRENCH and DONALD MALCOLM, Van Nuys, Calif.

Nephrocalcinosis. W. J. ENGEL, Cleveland.

Treatment of Patients with Carcinoma of the Bladder.
RUBIN H. FLOCKS and EDWARD E. WIEBEN, Iowa City.

Hematuria. JAMES C. NEGLEY, Glendale, Calif.

Discussion on papers of Dr. Engel and Drs. Flocks and Wieben to be opened by BEN D. MASSEY, Pasadena, Calif.; ROGER W. BARNES, Los Angeles, and THOMAS A. MORRISSEY, New York.

THE SCIENTIFIC EXHIBIT

The Scientific Exhibit will be located in the Civic Auditorium in Polk Hall and in corridors on the first and second floors. Motion pictures will be shown in the nearby Masonic Hall.

The nineteen sections of the Scientific Assembly have arranged small groups of exhibits dealing with the respective specialties of medicine. Emphasis is placed, however, on the interest of the physician in general practice rather than that of the specialists in the various groups. Among other features of interest will be the special exhibit on fractures, blood bank demonstrations, an exhibit symposium on tropical medicine and clinical conferences on diabetes.

Admission to the Scientific Exhibit will be limited to persons wearing the Fellowship badge or other official badge of the Convention. The public will not be admitted to the Scientific Exhibit.

THOMAS G. HULL, DIRECTOR
SCIENTIFIC EXHIBIT

SPECIAL FEATURES

The Committee on Scientific Exhibit has arranged for the following special features this year.

Special Exhibit on Fractures

The Special Exhibit on Fractures is presented again this year under the auspices of the following committee:

KELLOGG SPEED, Chicago, chairman.
FREDERICK A. JOSTES, St. Louis.
GORDON M. MORRISON, Boston.

The local representative of the Committee is Carleton Mathewson Jr., San Francisco.

The purpose of the exhibit is to stress elementary points in treatment based on the pathology of each type of fracture for instruction of the physician in general practice.

A pamphlet has been prepared for distribution, giving the essential features of the exhibit.

Continuous demonstrations will be conducted each morning and afternoon throughout the week. The subjects covered this year are as follows:

Emergency Treatment of Fractures of the Lower Extremity.
Fracture of the Shaft of the Femur.
Supracondylar Fracture of the Humerus.
Fracture of the Lower End of the Radius.
Fractures of the Ankle.
Compression Fracture of the Spine.

The following demonstrators will assist the Committee in the presentation of the exhibit:

Vernon C. Abbott, Pontiac, Mich.
Ronald W. Adams, Boston.
Stewart Armstrong, Brookline, Mass.
Leonard Barnard, Oakland, Calif.
John B. Black, Los Angeles.
Donald R. Brandt, Flint, Mich.
Ernest M. Burges, Seattle.
John J. Callahan, Seattle.
C. Elmer Carlson, Portland.
Ralph G. Caruthers, Charlmnatl.
Comdr. Chalmers R. Carr, Oakland, Calif.
William Arthur Clark, Pasadena, Calif.
Reed S. Clegg, Salt Lake City.
Edward J. Coughlin Jr., Williamstown, Mass.
Francis J. Cox, San Francisco.
Lewis N. Coxen, Los Angeles.
Carl B. Davis Jr., Chicago.
Joe B. Davis, Portland, Ore.
Hardin B. Elliott Jr., Flint, Mich.
Harry Esmond, Seattle.
Jackson Flanders, Redwood City, Calif.
Robert Florence, Tacoma, Wash.
Comdr. L. F. Friend, Oakland, Calif.
Charles W. Gilfillan, Los Angeles.
Gerald C. Gill, Oakland, Calif.
Wallace W. Greene, San Francisco.
Stanley S. Haft, Los Angeles.
Paul H. Harmon, Oakland, Calif.
W. F. Holcomb, Oakland, Calif.
Melvin T. Hurley, Richmond, Calif.
Fred W. Ifield, Los Angeles.
Comdr. R. B. Johnson, Oakland, Calif.
Peter Joseph, San Francisco.
John W. Larrabee, Hartford, Conn.
G. B. Lewis, Oakland, Calif.
J. Vernon Luck, Los Angeles.
Theodore A. Lynn, Los Angeles.
Robert Mazet, West Los Angeles.
John F. Merritt, Santa Barbara, Calif.
John J. Milroy, Waubegan, Ill.
William H. Moloney Jr., Los Angeles.
Gordon M. Morrison, San Mateo, Calif.
Frank G. Murphy, Chicago.
Alonzo J. Neufeld, Los Angeles.
Homer C. Pheasant, Los Angeles.
Edmund T. Rumble Jr., Callicoon, N. Y.
Walter Scott, Los Angeles.
A. B. Silver, San Francisco.
Frank B. Smith, Portland.
Comdr. H. A. Streit, Oakland, Calif.
T. D. Thompson, Spokane, Wash.
Herbert W. Virgin Jr., Miami, Fla.
J. Huber Wagner, Pittsburgh.
Raymond Wallerius, Sacramento, Calif.
Robert Watkins, San Francisco.
Philip R. Westdahl, San Francisco.
J. C. Woodward, Vancouver, Wash.

A Community Blood Bank

The Blood Bank Commission of the California Medical Association presents a model nonprofit community blood bank. The Chairman of the Commission is John R. Upton, San Francisco.

Modern methods of history taking, blood typing, blood procurement and laboratory technics will be demonstrated, together with various phases of mobile blood banking.

The exhibit will include complete equipment for blood bank purposes with a physician, secretary, technician and canteen worker in constant attendance.

Among the personnel on duty at the booth will be the following:

Dewitt Burnham, San Francisco.
Donald Harrington, Stockton, Calif.
Clayton Lyon, San Francisco.
Malcolm Merrill, San Francisco.
C. D. Nowel, Fresno, Calif.
Gerald Ridge, Ventura, Calif.
James Rinehart, San Francisco.
Dudley Y. Saeltzer Jr., Sacramento.
David Slingman, Berkeley, Calif.
Owen Thomas, Santa Rosa, Calif.

Exhibit Symposium on Tropical Medicine

The American Society for Tropical Medicine, with the cooperation of the American Foundation for Tropical Medicine, is presenting an exhibit symposium to show the many advances that have occurred in the control of tropical diseases since the close of World War II, especially as they affect the Pacific Area.

The following Committee is in charge of the symposium:

JOHN F. KESSEL, Los Angeles, chairman.
HARRY MOST, New York
EDWIN H. LENNETTE, Berkeley

Filariasis in Pacific Areas—Research and Control

JOHN F. KESSEL, University of Southern California, Los Angeles:

The exhibit presents a map of the Pacific region showing the distribution of filariasis in the Pacific, and the centers where special research and control on this subject are in progress, especially the Naval Medical Research Institute in American Samoa, the work of the University of Southern California in cooperation with the French Colonial Medical Service in Tahiti and the work of the British Colonial Medical Service in Fiji. Results of work in progress from these centers will be featured in the form of photographs, posters, charts, booklets, transparencies and drawings.

Schistosomiasis Japonica

RUELL A. SLOAN, Army Forces Institute of Pathology, Washington, D. C.; WILLARD WRIGHT, National Institutes of Health, Bethesda, Md., and ERNEST CARROLL FAUST, Tulane University School of Medicine, New Orleans.

The most recent findings and current evaluations of this important tropical disease of the Pacific are presented by the various medical illustrative technics.

Mite Typhus

JOSEPH E. SMADEL, Army Medical Department Research and GRADUATE SCHOOL, Army Medical Center, Washington, D. C.

The exhibit shows the vector mites, the quantitative and qualitative relationship between the vector and nonvector mites, the incidence of infection in exposed volunteers, the cycle of infection in the primary jungle and in scrub terrain, and data on the chemotherapy and chemoprophylaxis of scrub typhus.

Plague

VERNON B. LINK, Western Communicable Disease Center Laboratory, Public Health Service, San Francisco.

Maps, photographs, tables and charts show the importance of plague in the Pacific Area. The antiplague activities of the United States Public Health Service will be summarized and emphasis placed on diagnosis, treatment and prevention of plague in the United States of America.

The Viral Encephalitides

MALCOLM H. MERRILL, ARTHUR C. HOLLISTER, W. ALLEN LONGSHORE JR., BENJAMIN H. DEAN and ARVE H. DAHL, California State Department of Public Health and University of California, San Francisco and Berkeley.

The exhibit consists of five panels showing the pertinent facts and present knowledge concerning the arthropod-borne viral encephalitides, including their importance, diagnosis and treatment, distribution, infection cycle or mode of spread, and control. Charts and posters, and photomurals covering up-to-date methods of diagnosis both clinical and laboratory, the problem of differential diagnosis, pathology and treatment will be shown in panels 1 and 2. Panel 3 will illustrate the known distribution of this group of viral diseases by means of a lighted map. The currently accepted infection cycle for one of the major viral encephalitides will appear on panel 4, while panel 5 will be devoted to individual and community preventive measures.

In addition to the exhibit symposium, the following exhibits dealing with various phases of tropical diseases will be found in other parts of the Hall.

Concepts of Coccidioidal Infections

ROBERT COHEN, MYRNIE GIFFORD and CHARLES E. SMITH, Kern General Hospital, Kern County Department of Public Health and University of California, Bakersfield and Berkeley.

Amebiasis

E. W. DENNIS, D. A. BERBERIAN and JOHN W. HART, Sterling-Winthrop Research Institute, Rensselaer, N. Y.

Q Fever

ROBERT J. HUEBNER, EDWARD BEEMAN and LAURI LUOTO, National Institutes of Health, Bethesda, Md.; JAMES H. STEELE, Communicable Disease Center, Atlanta, Ga., and WILLIAM L. JELLISON, Hamilton, Mont.

Hansen's Disease (Leprosy)—Orthopedic Manifestations and Treatment

J. WARREN WHITE, LIEUT. JACK W. MILLAR, USN., and RICHARD S. DODGE, Honolulu, Hawaii.

Clinical Conferences on Diabetes

A series of lectures and clinics dealing with diabetes and its complications will be conducted in Space 430 from Monday until Thursday under direction of a committee composed of members of the George F. Baker Clinic, New England Deaconess Hospital and the American Diabetes Association and the staff members of Diabetes Clinics in San Francisco under the chairmanship of Howard F. Root. The newer insulins and their use in treatment, the use of diet, treatment of complications such as diabetic coma, vascular complications, surgery, pregnancy and the ocular complications of diabetes will be presented.

The program follows:

Monday, June 26

12:00 noon **Diabetes Detection** HOWARD F. ROOT, Boston.
12:30 p. m. **Control of Diabetes. Victory Medal Winners.** G. B. ROBSON, San Francisco.
1:00 p. m. **Planning a Teaching Program for the Patient.** BLAIR HOLCOMB, Portland, Ore.
1:30 p. m. **Treatment of the Brittle Diabetic.** HENRY B. MULHOLLAND, Charlottesville, Va.
2:00 p. m. **Newer Surgical Procedures in Diabetes.** LELAND S. MCKITTRICK, Boston.
2:30 p. m. **Eye Complications.** JEROME W. BETTMAN, San Francisco.
3:00 p. m. **Diet and Insulin.** ALEXANDER MARBLE, Boston.
3:30 p. m. **Treatment of Intercapillary Glomerulosclerosis and Renal Complications.** EDWARD C. PERSIKE, San Francisco.
4:00 p. m. **Pregnancy and Diabetes.** LESTER J. PALMER, Seattle.

Tuesday, June 27

10:00 a. m. **Diet and the Need for Control.** FRANK N. ALLAN, Boston.
10:30 a. m. **Treatment of Hypoglycemia; Adenomas of the Islands of Langerhans.** ALEXANDER MARBLE, Boston.
11:00 a. m. **Gastrointestinal and Hepatic Complications.** GARNETT CHENEY, San Francisco.
11:30 a. m. **Intercapillary Glomerulosclerosis.** RANDALL G. SPRAGUE, Rochester, Minn.
12:00 noon **Treatment of Coma.** HOWARD F. ROOT, Boston.
12:30 p. m. **Need for Control of Diabetes.** HENRY T. RICKETTS, Chicago.

1:00 p. m. **Recent Advances in Physiology of Diabetes.**
ALEXANDER MARBLE, Boston.
1:30 p. m. **Cardiovascular Complications.**
EDWARD L. BORTZ, Philadelphia.
2:00 p. m. **Retinitis in the Course of Diabetes.**
ARTHUR JAMPOLSKY, San Francisco.
2:30 p. m. **Newer Methods of Treatment of Severe Neuropathy.** HOWARD F. ROOT, Boston.
3:00 p. m. **Surgery and Diabetes.**
ROY B. COHN, San Francisco.

Wednesday, June 28

10:00 a. m. **Thyroid, Pituitary and Adrenal Cortex.**
ARTHUR R. COLWELL, Evanston, Ill.
10:30 a. m. **The Feet of the Diabetic.**
NELSON HOWARD, San Francisco.
11:00 a. m. **Treatment of Obesity and Prevention of Diabetes.** HAROLD I. HARVEY, Berkeley, Calif.
11:30 a. m. **Treatment of Diabetic Foot Lesions.**
FREDERICK W. WILLIAMS, New York.
12:00 noon **Diabetic Control in Youthful Cases.**
HOWARD F. ROOT, Boston.
12:30 p. m. **Potassium in Diabetic Coma.**
JEROME W. CONN, Ann Arbor, Mich.
1:00 p. m. **NPH-50 Insulin and Insulin Mixtures.**
ALEXANDER MARBLE, Boston.
1:30 p. m. **Insulin Resistance.**
H. C. SHEPARDSON, San Francisco.
2:00 p. m. **Incidence of Diabetic Mothers.**
JOSEPH P. KRISS, San Francisco.
2:30 p. m. **Public Health Aspects.**
H. L. C. WILKERSON, Boston.
3:00 p. m. **Endocrine Relations in Diabetes.**
FRANCIS GREENSPAN, San Francisco.

Thursday, June 29

10:00 a. m. **Treatment of Diabetic Coma.**
ALEXANDER MARBLE, Boston.
10:30 a. m. **Cardiac Complications.**
MARLOW HARRISON, San Francisco.
11:00 a. m. **Prevention of Gangrene.**
WILLIAM H. OLMSTED, St. Louis.
11:30 a. m. **Film Demonstrations of Severe Infections.**
DEWITT BURNHAM, San Francisco.
12:00 noon **Insulin Mixtures.**
FRANKLIN B. PECK, Indianapolis.
12:30 p. m. **Changing Statistics.**
H. H. MARKS, New York.
1:00 p. m. **Retinitis and the Prognosis.**
DAVID McKAY, San Francisco.
1:30 p. m. **Case Demonstration.**
MYRON ARRICK, San Francisco.
2:00 p. m. **Renal Complications of Diabetes and Prevention.** HOWARD F. ROOT, Boston.
2:30 p. m. **Unilateral Renal Glycosuria and Nephrectomy.**
CLAUDE P. CALLAWAY, San Francisco.
3:00 p. m. **Treatment of Complications in Skin and Nervous System.**
HERBERT N. JACOBS, San Francisco.

SECTION EXHIBITS

Each of the nineteen sections of the Scientific Assembly has arranged a group of exhibits dealing with the various branches of medicine.

Section on Internal Medicine

The representative to the Scientific Exhibit from the Section on Internal Medicine is Wesley W. Spink, Minneapolis.

Artane®—Pharmacologic and Clinical Studies.

RAYMOND W. CUNNINGHAM, B. K. HARNED, JOHN J. DENTON and GUY W. CLARK, Lederle Laboratories, Pearl River, N. Y.

The exhibit consists of a series of charts and graphs describing the pharmacodynamic activity of artane® (trihexyphenidyl) and several closely related compounds together with the effects of multiple doses in a large series of animals. The pharmacology of six related compounds was investigated extensively in the evaluation of Artane preparatory to clinical trial. Summaries of some of the clinical results with trihexyphenidyl will be included.

Liver Biopsy in Chronic Hepatic Disease

VICTOR M. SHOROV, and LIEUT. DONALD A. SUTHERLAND (MC), Army Hepatic and Metabolic Center, Valley Forge General Hospital, Phoenixville, Pa.

Liver biopsy is presented as a useful adjunct in the diagnosis and prognosis of chronic liver disease. The exhibit shows what correlation can be expected between the morphologic changes in the liver and the functional changes as measured in the laboratory. The technic, indications, contraindications, and complications of the liver biopsy in a large series of cases are also shown.

Rheumatoid Arthritis

DONALD F. HILL, W. PAUL HOLBROOK, LEO J. KENT and C. A. L. STEPHENS Jr., Southwestern Clinic and Research Institute, Inc., Tucson, Ariz.

The exhibit presents a basic outline of treatment that continues to be essential for all patients. A method for correction of knee flexion contraction is shown with examples. Clinical effects and results with the experimental use of cortisone and pituitary adrenocorticotropic hormone are given, together with clinical laboratory results and studies in amino acid excretion.

Concepts of Coccidioidal Infections

ROBERT COHEN, MYRNIE GIFFORD and CHARLES E. SMITH, Kern General Hospital, Kern County Department of Public Health and University of California, Bakersfield and Berkeley, Calif.

The etiologic agent of coccidioidomycosis, cultures, skin test and serology tests with graphs of results of serology tests are shown. Public health graphs of Kern County (endemic area) of the disseminated cases and primary and mortality figures are presented, together with pictures of patients and experimental results of 2 years' study of actidione (streptomycin gresius irradiated) on disseminated cases.

Zoetropes of Cardiac Action Currents

FREDERIC B. FAUST, Payne-Shotwell Foundation, Littlefield, Texas.

The exhibit presents an instrument through which pictures appear to be animated. One zoetrope demonstrates the normal action current set up by the repolarization wave during systole, followed by repolarization in the heart as a whole and in one ventricle, as an enlargement. The central portion depicts the correlation of intra-auricular, intraventricular and aortic pressure activity. Few physiologic processes have been more accurately described than these mechanical and electrical events. A second zoetrope demonstrates the action current when injured muscle is stimulated resulting in a positive shift of the isoelectric line during the depolarized state of this muscle, in the heart as a whole and in one ventricle. The third zoetrope demonstrates bundle branch block (uncommon type). The impulse halts in the right bundle of His. The impulse continues in the left ventricle and then sweeps clockwise through the epicardium and purkinje fibres, then through the right ventricle giving rise to the lengthened and deformed QRS. The upper animation is that of auricular flutters. The green bands of the atria indicate the circular path of auricular depolarization which causes the "sawtooth" effect on the electrocardiogram. The circular movement of Lewis is still the most popular physiologic explanation.

Universal Serologic Reaction in Health and Disease

REUBEN L. KAHN, University of Michigan, University Hospital, Ann Arbor, Mich.

The exhibit consists of graphs which illustrate characteristic serologic patterns of the universal reaction with lipid antigen in health, in experimental immunization and in various diseases. The graphs show that serologic patterns, constant in health, undergo changes in (1) syphilis, (2) yaws, (3) tuberculosis, (4) leprosy and (5) malaria and in (6) "false positive" reactors and (7) animals inoculated with various substances. The serologic patterns illustrated indicate that the universal reaction offers a new tool for serologic investigations of human beings and animals in health and in different diseases.

Congenital Heart Disease—Study, Diagnosis and Surgical Treatment

CHARLES D. MARPLE, University of California School of Medicine, San Francisco.

The various means by which the congenital heart diseases may be studied and diagnosed are described, indicating those methods which are available to the average practicing physician and those specialized methods which require the facilities of a medical center. A classification of the various types of congenital heart lesions is presented along with an outline of symptoms and signs which may suggest the presence of these lesions. Specialized methods of study such as electrocardiography, electrokymography, roentgenography, including angiography, and cardiac catheterization are described as research and diagnostic tools. There is a brief description of the surgical treatment of congenital heart lesions.

Hypertension in the Young

J. Q. GRIFFITH JR., Philadelphia, and E. E. MANSER, Haddonfield, N. J.

More than 100 subjects with hypertension but without renal failure have been studied, including both sexes, all under 20 years of age, and followed for varying periods up to 10 years. A group can be differentiated comprising a new syndrome, characterized by: (1) male sex, (2) height of 5 feet, 10 inches or more, (3) substance in serum antidiuretic by rat test (posterior lobe pituitary hormone), (4) disappearance of antidiuretic substance followed by return of blood pressure to normal in 6 to 18 months, usually without treatment, and (5) absence of any true morbidity or mortality.

Cationic Exchange Polymers in Congestive Heart Failure

I. J. GREENBLATT, T. D. COHN, M. JACOBI, E. W. LIPSCHUTZ and I. S. FRIEDMAN, Beth-El Hospital and Jewish Hospital of Brooklyn, Brooklyn.

Cationic ammonium and hydrogen exchangers have been fed to subjects in moderate states of congestive failure. These unabsorbed polymers pick up most naturally occurring cations and substitute an ammonium radicle or hydrogen radicle for the sodium, potassium, calcium, or magnesium that may be present in the environs of the medium. Studies on electrolyte distribution in the blood, urine and feces show a definite trend in increasing the fecal sodium, potassium, calcium and magnesium. The urine output is increased in many instances. The diet is essentially a 4 to 6 Gm. per day sodium chloride intake. In certain cases, a large number of casts appear in the urine following therapy. The dosage is regulated to contain no less than 50 Gm. of the polymer per day.

Psychosomatic Genesis of Coronary Artery Disease

DON CARLOS PEETE, University of Kansas School of Medicine, Kansas City, Kan.

This exhibit emphasizes the historical background of the concept of coronary artery disease as being a psychosomatic illness. References are made to many sources including the Bible, indicating that this type of heart disease has long been recognized. The therapeutic value of some biblical teachings is emphasized. Complete studies of a series of patients with laboratory records are included in the exhibit, showing the diagnosis and treatment.

Neurovascular Reflex Dystrophy—Causalgic States

F. STANLEY MORRST, University of Kansas School of Medicine, Kansas City, Mo.

Neurovascular reflex dystrophy does not constitute disease, per se, but represents end results of various etiologic factors produced by internal or external tissue trauma. The mechanism responsible for the development of neurovascular reflexes is probably as follows: (1) sites of origin of stimuli are frequently in injured areas of extremities, brought about through external trauma or by disease processes in tissues. The actual storage of stimuli in a "center" composed of this network of accessory neurones in the spinal cord segments and forming an "internuncial pool" which can be discharged immediately, or held for release hours or days later, is of course theoretical. Nevertheless it is for the present, at least, probably the best hypothesis available, and certain clinical technics based on this concept are of therapeutic value. Charts, clinical photographs and diagrams show treatment for causalgia, Sudeck's atrophy, post-traumatic arteriospasm, ainhum syndrome, Palmer fascial contractures and posthemaplegic hand syndrome and postinfarctional shoulder.

Sublingual Administration of Steroidal Hormones

H. LISSER, R. B. AIRD, M. S. ARRICK, L. L. BENNETT, L. S. CRAIG, R. F. ESCAMILLA, M. B. GOLDBERG, G. S. GORDAN and M. J. NYDA, University of California School of Medicine, San Francisco.

Photographs, charts and graphs present objective evidence of the efficacy of sublingual or buccal administration of various steroidal hormones: testosterone compounds in male hypogonadism or for the production of increases in height and weight, desoxycorticosterone acetate in Addison's disease and convulsive disorders and progesterone for effects on basal body temperature and the endometrium. Stress is placed on ease of administration and control, economy and convenience as well as efficacy of this type of therapy.

Clinical Evaluation of Commonly Used Anti-Thyroid Compounds

THOMAS H. MCGAVACK, JACQUELINE CHEVALLEY, I. J. DREKTER and SIDNEY STERN, New York Medical College and Metropolitan Hospital Research Unit, Welfare Island, N. Y.

Their affects will be recorded in relation to alterations in symptoms and signs, pulse rate, blood pressure, weight, basal metabolic rate, serum cholesterol levels and creatine excretion. Whenever possible, the histologic picture found at operation will be compared with that obtained through pretreatment biopsy. The incidence, nature and severity of toxic reactions will be tabulated from the above indexes of therapeutic effectiveness and toxicity. The drugs will be rated according to their usefulness in relation to clinical control of thyrotoxicosis, which stands somewhat in the following order: (1) 1 methyl-2-mercapto-imidazole, (2) 1 ethyl-2-mercapto-imidazole, (3) 2-mercapto-imidazole, (4) methylthiouracil, (5) propylthiouracil and (6) thiouracil. In establishing a final numerical index, thiouracil, while now no longer clinically available, will be used as a standard of reference.

Behavior of Electrolytes in Diabetes Mellitus

JONAS WEISSBERG, A. M. SHEARMAN, ALEXANDER HEISLER and GEORGE R. SCISM, New York Medical College and Metropolitan Hospital Research Unit, Welfare Island, N. Y.

This exhibit summarizes studies of the behavior of electrolytes in 16 diabetic subjects before and after the institution of adequate therapy with fluids, minerals and insulin. Eight of these patients were admitted to the hospital in severe diabetic acidosis; the remaining 8 were severely diabetic subjects in whom ketosis developed after a reduction or discontinuance of insulin therapy. At intervals of one to four hours, specimens of blood and urine were analyzed for their content of potassium, sodium, chloride, phosphorus and total nitrogen, and, in addition, the blood was analyzed for its content of sugar and for carbon dioxide combining power. The movement of potassium under physiologic conditions is compared with its behavior in various phases of controlled and uncontrolled diabetes.

Progress in the Control of Diabetes

HOWARD F. ROOT, ELLIOTT P. JOSLIN, PRISCILLA WHITE, ALEXANDER MARBLE, ALLEN P. JOSLIN, George F. Baker Clinic, New England Deaconess Hospital, Boston, and DONALD B. ARMSTRONG and HERBERT H. MARKS, Metropolitan Life Insurance Company, New York.

Charts presenting clinical and statistical data on (1) treatment of diabetes and its major complications, juvenile diabetes and diabetic pregnancies, with emphasis on careful dietary and insulin treatment in the control of diabetes, (2) results of treatment of the disease based on follow-up data of diabetic patients treated at the George F. Baker Clinic, of the New England Deaconess Hospital since 1897, (3) life tables for diabetics showing the progressive increase in expectation of life, comparisons with the general population and factors influencing the longevity of dia-

betics (4) trends in the causes of death of diabetics and (5) trends and prevalence of diabetes in the general population based on mortality and survey data.

Teaching the Diabetic Patient

HUGH L. C. WILKERSON, Diabetes Branch, U. S. Public Health Service, Boston, LESTER J. PALMER, JOHN A. REED and RANDALL G. SPRAGUE, American Diabetes Association, Brooklyn, N. Y., and ELIZABETH PERRY, American Dietetic Association, Chicago.

Physicians, dietitians and public health workers have combined to present audiovisual aids for educational use regarding the medical, nutritional and nursing aspects of diabetes. A group of consultants will be on hand to discuss the use of the materials presented. A film strip covering the different subjects of the audiovisual aids will be shown.

Section on Surgery, General and Abdominal

The representative to the Scientific Exhibit from the Section on Surgery, General and Abdominal, is Walter G. Maddock, Chicago.

Acute Sodium, Potassium and Calcium Deficiencies in Surgical Patients

ROBERT ELMAN, THEO. E. WEICHSELBAUM and ROBERT KEATING, Washington University School of Medicine, St. Louis.

Surgical patients have been studied by measuring sodium, potassium and calcium levels in the blood, sodium and potassium balances and estimations of blood volume and extracellular space. Electrocardiograms have also been used in many of these cases. An attempt will be made to evaluate the diagnosis and treatment of various types of sodium and potassium deficiencies. These studies have been made possible because of a new flame photometer developed in this laboratory. Sodium, potassium and calcium determinations will be made from finger blood within a few minutes as a demonstration of the rapidity and accuracy of the method.

Carcinoma of the Breast—Diagnosis and Treatment

LOUIS P. RIVER and JOSEPH SILVERSTEIN, Hektoen Institute, Cook County Hospital and Stritch Medical School of Loyola University, Chicago.

This exhibit outlines the statistics deemed essential to consideration of the incidence of breast carcinoma in general practice, and of that incidence observed in a series of 500 clinic patients with breast complaints whose lesions were subsequently subjected to biopsy. Error observed in group clinical diagnosis is demonstrated and the sources of such error as related to inspection findings shown by color transparencies. Texts outline and transparencies illustrate the experience of the Breast Tumor Clinic of the Cook County Hospital with clinical error in the selection of extent of surgical treatment. Findings characteristic of the remote spread of breast carcinoma are illustrated in conjunction with illustration of visible local findings considered indicative of low curability. The palliative use of roentgen ray and steroid therapy is shown. The clinical importance of a "dominant" lump in the breast, and of complete physical and roentgen ray examination preceding selection of treatment at the time of a positive biopsy is emphasized. The material presented is organized so as to be of value both to general practitioners of medicine and to general surgeons.

Arteriography in the Management of Vascular Disease

NORMAN E. FREEMAN, THOMAS M. FULLENLOVE and RUTHERFORD S. GILFILLAN, Franklin Hospital, San Francisco.

Arteriography is of particular value in the precise localization of lesions of the blood vessels. It is of help frequently in disclosing the nature of the disease process. Newer technics in radiography of the blood vessels, such as retrograde arteriography and the use of the Valsalva maneuver, are described by means of posters and drawings. Roentgenograms are shown to illustrate the advantages of the newer methods. Brief case reports are appended together with photographs and microphotographs of pathologic material removed at operation.

Cancer of the Mouth—Treatment and End Results

GORDON B. NEW, J. B. ERICH and K. D. DEVINE, Mayo Clinic, Rochester, Minn.

The exhibit shows various types of malignant tumors that occur in the oral cavity and the methods of therapy which have been found to give the most effective results at the Mayo Clinic. Malignant lesions of the lips, cheeks, upper and lower jaws, floor of the mouth and tongue are considered in detail. Special emphasis is placed on carcinomas of the tongue which are particularly serious because of their tendency to undergo metastasis early. Malignant lesions at the base of the tongue offer a particularly difficult problem in the point of accessibility to treatment. Resection of the mandible by means of surgical diathermy is demonstrated in moulages, as are methods of reconstructing the lower lip and cheek. The exhibit suggests principles and plans of therapy rather than inalterable technics.

Complicated Peptic Ulcer—A new Treatment, Banthine

KEITH S. GRIMSON and C. KEITH LYONS, Duke Hospital, Durham, N. C., and FRANK H. LONGINO, Fort Knox, Ky.

Complications of peptic ulcer and their cause, particularly hypermotility and hyperacidity are presented, illustrating humoral stimuli (gastrin-enterogastrone) and nervous or cephalic stimuli (vagus). Conventional treatment of complications is outlined and surgical treatment is demonstrated contrasting results of subtotal gastric resection and of vagotomy and gastroenterostomy performed in more than 130 patients in each series. Banthine, an orally effective drug with potent atropine and ganglionic blocking properties, is presented with data on animals and patients. This drug produces effects approximating results of vagotomy on, e. g., gastric acidity and motility. Results of use in treatment of patients with peptic ulcer during nine months are illustrated.

Surgical Drainage Versus Wicks in Vents: Reduced Mortality and Morbidity

RAFE C. CHAFFIN, Los Angeles.

Exhibit of moulages in operation showing that wicks do not drain; that wicks should never be called drains and that fluid in a cavity treated with a wick is never drained, but simply overflows when the reservoir is full. A new field is added and shows that the bladder can now be kept entirely empty and bladder surgery made much safer with earlier healing. The simplicity of surgical drainage is proved. Evidence of the effectiveness of the technic amply presented by charts and statistical data.

Skull Fractures—Types and Mechanism of Production

E. S. GURDJIAN, J. E. WEBSTER and H. R. LISSNER, Wayne University College of Medicine and Grace Hospital, Detroit.

The exhibit describes the mechanism of production of the various types of skull fractures (linear, comminuted, depressed and perforated). The time of fracture following impact is computed on the basis of strain-gage cathode ray oscilloscope studies. Critical energies and velocities in the production of skull fractures are discussed. Deformation of the skull following impact is reevaluated on the basis of newer technics. Fracture of the base and those at a distance from the area of impact are discussed. Experimental skull fractures on human embalmed cadaver heads and pertinent clinical fractures are displayed.

Surgery of Complicated Duodenal Ulcer

FREDERICK P. ROSS, RICHARD WARREN, EDMUND C. MEADOWS and ROBERT H. VAUGHAN, Veterans Administration Hospital, West Roxbury, Mass.

The exhibit is concerned with a group of 225 patients who, during a period of three and a half years, came to surgery from a total group of 850 patients suffering from duodenal ulcer and its complications. Varying categories of patients are shown with the surgical treatment used. Special attention is given to perforated ulcer, massive hemorrhage, the difficult duodenal stump and special problems.

Quantitative Studies on the Mechanisms of Gastric Secretion

LESTER R. DRAGSTEDT, EDWARD R. WOODWARD, EDWARD H. STOREY, HARRY A. OBERHELMAN JR. and CURTIS A. SMITH, University of Chicago School of Medicine, Chicago.

A quantitative method has been developed for the collection of gastric secretion from Pavlov pouches and the totally isolated stomach of dogs for periods of several weeks to many months. As a result of these studies it is concluded that of the total amount of gastric juice secreted in a 24 hour period, approximately 45 per cent is dependent on nervous stimuli, 45 per cent results from the antrum mechanism, and 10 per cent or less from the intestinal phase of secretion. The significance of these findings in the therapy of peptic ulcer will be pointed out.

Operative Cholangiography—Its Technic and Value

N. FREDERICK HICKEN and A. J. MCALLISTER, University of Utah Medical School, Salt Lake City.

Drawings, translites, and roentgenograms depict the technic, indications for and value of operative cholangiography. Representative cases are selected from the 2,200 cholangiograms. Special emphasis is placed on the value of this procedure in localizing common duct, hepatic duct and liver stones. Also the significance and frequency of refluxing into the pancreatic ducts. The technic, indications and errors encountered during cholangiography are stressed. The value of cholangiography in detecting need for instrumental exploration of the common bile is presented.

Prevention of Intravascular Clotting by Maintenance of the Plasma Antithrombin Level

JOHN H. KAY, SAMERILL B. HUTTON, GEORGE BALLA and ALTON OCHSNER, Tulane University School of Medicine, New Orleans.

Statistical analysis of the antithrombin level in phlebothrombosis and the prethrombotic state will be presented. The effect of maintaining the antithrombin level by the use of alpha tocopherol and other substances on the incidence of intravascular clotting will be demonstrated statistically.

Surgical Management of Lesions of the Esophagus and Stomach

KENNETH C. SAWYER, ALEXIS E. LUBCHENCO and RAY G. WITHAM, Denver.

This exhibit consists of transparencies from 18 cases with roentgenograms, gross and microscopic illustrations of specimens of various malignant lesions of the esophagus and stomach. The exhibit is primarily to illustrate the range of operability.

Antibiotics in Experimental Gas Gangrene

WILLIAM R. SANDUSKY, University of Virginia Department of Medicine, Charlottesville, Va.

Pictures and charts present the technic and results of a laboratory study concerned with the use of the newer antibiotics—aureomycin, chloramphenicol and bacitracin—in the prevention of experimental gas gangrene in guinea pigs. Excellent prophylactic results have been obtained with these antibiotics.

Neoplasms of the Stomach Other than Carcinoma

HAROLD LINCOLN THOMPSON and JOSEPH M. OYSTER, Los Angeles.

An exhibit based on a study of 120 cases of neoplasm of the stomach, other than carcinoma, from clinical and pathologic material at the Los Angeles General Hospital. The clinical features indicate that even in benign tumors certain of the symptoms are so serious or so urgent as to be a threat to the life of the patient. A significant proportion of all tumors were accompanied with severe bleeding. A lesser group of tumors were accompanied with malignant degeneration.

Section on Obstetrics and Gynecology

The representative to the Scientific Exhibit from the Section on Obstetrics and Gynecology is FREDERICK H. FALLS, Chicago.

Bacteriologic Aspects of Vaginal Trichomoniasis

ELMER BELT and J. JERRY LASH, Elmer Belt Urologic Group, Los Angeles.

The exhibit shows pictures of diverse flora associated with trichomonad vaginitis, causative organism of the so-called syndrome, Trichomonas vaginalis vaginitis, and graphic data supporting laboratory investigations which tabulate organisms associated with the specific vaginitis. Graphic data show growth curves of in vitro studies of the effect of vaginal bacteria on the growth of Trichomonas vaginalis. Legends of explanatory statements accompany the exhibit. Data have been drawn from a two year clinical and laboratory study of the problem of vaginitis, representing material selected from over 100 cases and correlating over 250 strains of bacteria.

Lens Hysteroscope—Diagnosis of Benign and Malignant Lesions of the Uterine Canal

WILLIAM BLOUNT NORMENT, Greensboro, N. C.

The exhibit presents a lens hysteroscope for examination of the uterine canal with colored photographs of benign and malignant growths of the fundus of the uterus made through the lens hysteroscope in the living. These are the results of eight years' experience with photography and observation with a lens hysteroscope of benign and malignant tumors of the uterine canal.

Mesonephric Remnants in the Human Female

JOHN W. HUFFMAN, Northwestern University Medical School, Chicago.

The exhibit demonstrates with plaster and wax models the normal embryonic development and regression of the mesonephros in the human female and portrays by photographs, photomicrographs and color transparencies the histologic characteristics of the normal mesonephric remnants and the pathologic entities developing from them. The models will be developed serially so that the viewer may follow the growth and degeneration of the mesonephros in its embryonic stages and to correlate persistent remnants in the adult with their embryonic antecedents. The photographs and photomicrographs will illustrate vaginal, cervical, corporeal, broad ligament and ovarian benign and malignant tumefactions of mesonephric origin.

Intraperitoneal Injection of Blood

WILLIAM C. KEETTEL, ROBERT HARDIN and KENNETH KINGSBURY, State University of Iowa Hospitals, Iowa City.

Citrated blood and unmodified blood in varying amounts, as well as isotonic sodium chloride solution, were injected into the cul-de-sac of patients to be subjected to laparotomies. The physical and pelvic findings are noted. Laboratory findings such as the changes in white blood cell count, sedimentation rates, hemoglobin, nonprotein nitrogen, free hemoglobin and icteric index are depicted in chart forms. In some instances tagged cells were injected to determine whether intact cells entered the peripheral circulation. In addition, the histologic, anatomic and bacterial changes are illustrated.

Obstetric Forceps

FREDERICK H. FALLS, University of Illinois College of Medicine and CHARLOTTE S. HOLT, Illinois State Department of Public Health, Chicago.

The exhibit is designed for teaching the subject of obstetric forceps delivery to postgraduate and undergraduate students. Sculptured models life size to scale are used with actual instruments in place. These are supplemented by drawings and lettered charts giving indications and details of technic in the application of forceps. Maternal and fetal pathology incident to this operation is covered together with a section devoted to anesthesia during forceps delivery and management of the newborn after forceps.

The Pubococcygeus Muscle—Impaired Function and Therapy

ARNOLD H. KEGEL, Los Angeles.

The supportive and sphincteric functions of the pubococcygeus were studied in relation to various degrees of genital relaxation and urinary stress incontinence in 500 patients. This important

muscular diaphragm, which is not reached by episiotomy or usual repair procedures, is shown to respond to muscle education and resistive exercise. In the treatment of 300 patients suffering urinary stress incontinence, 93 per cent were relieved. In obstetric and gynecologic repair, active exercise aids in restoration of tone, elasticity, and function of the tissues. Anatomy, physiology and mechanism of injury and repair are shown by means of roentgenograms, moulages and diagrams.

Practical Office Gynecology

WALTER J. REICH, MITCHELL J. NECHTOW and ANGELA BARTENBACH, Chicago.

The exhibit shows practical procedures in office gynecology, such as the diagnosis and treatment of trichomonas vaginitis, the technic of electrocauterization for chronic cervicitis, the management of condyloma acuminatum, the endometrial biopsy, uterotubal insufflation in the study of sterility, the Huhner test, biopsy for the diagnosis of carcinoma, Wylie pessary for primary dysmenorrhea, injection treatment for intractable pruritus vulvae and the use of a simple intrapelvic hydrotherapy apparatus for pelvic inflammatory diseases.

Section on Ophthalmology

The section exhibit committee of the Section on Ophthalmology consists of GEORGIANA D. THEOBALD, Oak Park, Ill., chairman; DONALD J. LYLE, Cincinnati, and PHILLIPS THYGESON, San Jose, Calif.

Development of the Ophthalmoscope—Helmholtz Centenary

FREDERICK C. CORDES and MICHAEL J. HOGAN, University of California School of Medicine, San Francisco, and OSWYN H. ELLIS, Los Angeles.

The exhibit contains various types of ophthalmoscopes starting with an original Helmholtz ophthalmoscope and going through the various modifications up to and including the recent electrical models. In addition, there will be some data on Helmholtz, together with his photograph.

Atlases of Ophthalmoscopy, 1850-1950

C. WILBUR RUCKER and THOMAS E. KEYS, Mayo Clinic, Rochester, Minn.

The exhibit presents a collection of all of the important atlases of ophthalmoscopy which have appeared since the invention of the ophthalmoscope by Helmholtz in 1850. The series demonstrates the development during the past century of printing technics and of knowledge of the disorders of the retina. A pamphlet will be available for distribution which will give an annotated description of each atlas.

Primary Chorioretinal Aberrations with Night Blindness

HAROLD F. FALLS and F. BRUCE FRALICK, University Hospital, Ann Arbor, Mich.; FRANK D. CARROLL, New York; DAVID G. COGAN, Boston, and P. J. LEINFELDER, Iowa City.

This exhibit reviews the classification of the primary chorioretinal aberrations with night blindness together with the clinical picture, heredity and pathology of the various subclasses of conditions falling into this group. The exhibit presents the unanimous views of the above committee appointed by the American Academy of Ophthalmology and Otolaryngology.

Ophthalmology—External Diseases, Pathology and Bacteriology

DUDLEY P. BELL, University of California School of Medicine, San Francisco.

The exhibit shows external diseases in ophthalmology correlated with pictures of the pathologic section and bacteria found in each case. Each disease entity is presented with a printed description in each case.

Diseases of the Fundus Oculi in Stereoscopic Transparencies

GLEN FLOYD and PETER C. KRONFELD, University of Illinois College of Medicine, Chicago.

The exhibit consists of 28 individual stereograms, each mounted in its own viewing apparatus, of various pathologic fundus conditions. All are actual fundus photographs taken with the Nordenson camera. The cases are selected to include, so far as possible, all general types of fundus lesions. By this method three dimension visualization is obtained which is frequently not obtainable in ordinary monocular ophthalmoscopy.

Section on Laryngology, Otology and Rhinology

The representative to the Scientific Exhibit from the Section on Laryngology, Otology and Rhinology is JAMES B. COSTEN, St. Louis.

Technic of Tracheotomy

A. C. STUTSMAN, St. Louis.

The exhibit deals with the technic of tracheotomy. Methods of avoiding complications are described and newer uses are given, such as in the treatment of tetanus and poliomyelitis.

Direct Laryngoscopy—Simplified Technic

SAM E. ROBERTS and FRANK S. FORMAN, University of Kansas School of Medicine, Kansas City, Kan.

Mannikins made of plaster of paris with mouth and larynx in latex. Self-retaining, dual distal lighted laryngoscopes will be demonstrated. Each visitor will be allowed to pass the laryngoscope and view the laryngeal lesion. There are many models depicting a wide variety of laryngeal pathology.

The Attic-Aditus-Antrum Area—Surgical and Nonsurgical Visualization

HOWARD P. HOUSE and GILBERT R. OWEN, University of Southern California School of Medicine, Los Angeles.

The surgical visualization of the Attic-Aditus-Antrum area will be illustrated by a series of colored drawings. The endaural approach to this area will be demonstrated by revealing the surgical technic of the simple, modified radical, and radical mastoid operations. The surgical anatomy will be described in detail. The nonsurgical visualization demonstrates a diagnostic roentgenographic method covering cases studied during the past five years. Original films, technical and pathologic details are demonstrated.

Tuberculous Laryngitis Treated by Chemotherapy

LINDEN J. WALLNER, GEORGE C. TURNER, MEYER R. LICHTENSTEIN and HENRY C. SWEANY, Municipal Tuberculosis Sanitarium, Chicago.

The exhibit demonstrates as completely as possible the case history, roentgenograms and photographs of patients, including pretreatment and post-treatment roentgenograms, color photographs of the larynx and transparency charts illustrating the important changes. Legends, charts and tables of the results of treatment in 100 cases are included.

Radioactive Cobalt—Use in Tumors of the Nasal Cavities

LEWIS F. MORRISON, BERTRAM V. LOW-BEER and FRANCIS A. SOOY, University of California Hospital, San Francisco.

Drawings, photographs and models show the methods of application of radioactive cobalt to tumors of the nose, nasopharynx and sinuses. Pictures and photomicrographs of illustrated cases are included.

Section on Pediatrics

The representative to the Scientific Exhibit from the Section on Pediatrics is ALBERT V. STOESSER, Minneapolis.

Endocrine Problems in Children

WILLIAM A. REILLY, University of Arkansas School of Medicine, Little Rock.

The exhibit presents practical endocrine problems in infancy and childhood covering pituitary, hypothyroidism and hyperthyroidism (including radioiodine, I^{131}, studies and therapy), hypoadrenocortical and hyperadrenocortical syndromes (in infancy) of hyperplasia and tumors, precocious puberty and ovarian syndromes (agenesis, tumors especially arrhenoblastomas). Photographs and legends covering diagnosis and especially therapy of proved interest and use to practitioners are shown.

Positive Pressure Oxygen Air Lock Designed for Resuscitation of the Asphyxiated Newborn Infant

ALLAN BLOXSOM, St. Joseph's Maternity and Children's Hospital, Baylor University College of Medicine, Houston, Texas.

The positive pressure air lock provides heated and humidified oxygen and air under pressures found at labor. Provision is made for cycling of the pressures to approximate the timing of labor uterine contractions. Pressures to expand the chest are believed not to exceed 5 cm. of water. A number of infants resuscitated in the positive pressure oxygen air lock have been habituated with no stimulation or other treatment by physicians or nurses. A few premature infants have required a stay in the lock of seven to ten days. The infant death rate at St. Joseph's Maternity and Children's Hospital during the few months period the positive pressure oxygen air lock has been in use has fallen from 1.94 per cent to 1.45 per cent.

Infantile Cerebral Palsy—Clinicopathologic Correlation

M. A. PERLSTEIN and HERMAN JOSEPHY, Brain Registry, American Academy for Cerebral Palsy, Chicago.

The exhibit presents clinical and pathologic correlations of the brain in cerebral palsy. Gross specimens, photomicrographs and photographs, as well as pneumoencephalographs and plates, of clinical cases of cerebral palsy are shown, in an attempt to demonstrate the correlation which exists between the etiologies of cerebral palsies, their pathologic representations in the brain and the clinical syndromes observed. Etiologic and pathologic classifications of the disease are presented.

Congenital Tumors with Structural Defects in Childhood

HAROLD W. DARGEON, Children's Tumor Registry, Memorial Hospital, New York, and JOHN M. KENNEY, Santa Rosa, Calif.

Congenital structural defects are observed with frequency in pediatric practice. Many childhood neoplasms are of a congenital nature. The exhibit shows examples of the not infrequent occurrence of the tumor and structural anomaly in the same child.

Section on Experimental Medicine and Therapeutics

The representative to the Scientific Exhibit from the Section on Experimental Medicine and Therapeutics is ROBERT W. WILKINS, Boston.

Effects of Increased Adrenal Cortical Function on Tumor Growth

OLOF H. PEARSON, LEONARD P. ELIEL and FREDERICK C. WHITE, Sloan-Kettering Institute, Memorial Hospital, New York.

The results of experimental studies on the use of pituitary adrenocorticotropic hormone (ACTH) and cortisone in patients with neoplastic disease will be presented with photographs, charts, roentgenograms and photomicrographs. Data on patients with chronic lymphatic leukemia, acute leukemia and lymphosarcoma will be presented. Metabolic data will be illustrated with simplified diagrams. Histologic and hematologic data will be illustrated in photographs and roentgenograms. Side effects of treatment with ACTH and cortisone, such as edema, potassium deficit and alkalosis, will be illustrated in diagrams and charts.

Treatment of Tuberculosis of Bone and Joints with Streptomycin

FELIX JANSEY, BRADLEY W. CARR and EDWARD A. MILLAR, Veterans Administration Hospital, Hines, Ill.

A survey is presented of cases of tuberculosis of bone and joints treated at Hines Hospital since February 1947 and serial follow-up with pertinent roentgenograms and photographs.

Cortisone (Compound E) Pharmacology and Clinical Use

JAMES MALLORY CARLISLE, AUGUSTUS GIBSON and ERNEST SCHMATOLLA, Merck & Co., Inc., Rahway, N. J.

The chemistry, hormonal interrelationships and metabolic and hormonal effects of cortisone are portrayed in a series of illustrated charts. Graphs, photomicrographs, electrocardiograms and photographs demonstrate the clinical effects of cortisone in a variety of diseases in which it has been used with success.

Effect of Pituitary and Adrenal Cortex Hormones and Pyromen in Allergy

THERON G. RANDOLPH, JOHN P. ROLLINS and MICHAEL ZELLER, Northwestern University Medical School, Chicago.

This exhibit consists of a poster demonstration of the comparative effects of pituitary adrenocorticotropic hormone (ACTH-Armour), concentrated adrenal cortex extract (ACE-Upjohn), cortisone (compound E-Merck) and pyromen (Baxter) on the clinical course, the tolerance for specific foods and inhalants, eosinophils and other blood elements, skin test and passive transfers in cases of bronchial asthma, hay fever and other allergic syndromes. Several patients have received successive courses of these therapeutic agents. The exhibit also includes a description of the direct counting chamber glycol-stain technic of enumerating eosinophils with comparative data in the use of this and other eosinophil technics.

Studies on the Fate of Nicotine in the Body

H. B. HAAG, P. S. LARSON and J. K. FINNEGAN, Medical College of Virginia, Richmond, Va.

Charts and posters depict what happens to nicotine in the burning cigaret, percentage of inhaled nicotine retained by the body, effect of p_H on the urinary excretion of nicotine, relation of nicotine dosage to percentage excreted in urine, rate of excretion and rate of detoxication, relative rate of elimination of nicotine by several species of animal and possible metabolites of nicotine.

Steroid Therapy in Cancer

S. G. TAYLOR III, ROGER MORRIS JR., DANELY P. SLAUGHTER, L. WALTER FIX, JAMES D. MAJARAKIS and RONALD G. HALEY, Presbyterian Hospital and University of Illinois College of Medicine, Chicago.

Charts, graphs and photographs summarize results obtained with treatment of about 80 patients with advanced cancer of the breast during the last four years with emphasis on indications, contraindications and limitations of these forms of therapy.

Dynamics of Endocrine Disease

LAURANCE W. KINSELL, SHELDON MARGEN, GEORGE MICHAELS, LIEUT. HARRY BARTON (MC), USN, and ROBERT REISS, Metabolic Research Unit, University of California School of Medicine—U. S. Naval Hospital and The Institute for Metabolic Research of Highland-Alameda County Hospital, Oakland, Calif.

The exhibit presents in diagrammatic fashion the normal and pathologic physiology of the glands of internal secretion in the light of present day concepts of endocrine disease.

Section on Pathology and Physiology

The representative to the Scientific Exhibit from the Section on Pathology and Physiology is J. J. MOORE, Chicago.

Diagnostic Tests

HAROLD KAUTZ, Council on Pharmacy and Chemistry, American Medical Association, Chicago.

The exhibit presents a classified list of special clinical and pathologic laboratory procedures employed in the diagnosis of disease and estimation of altered function. The material is subdivided under (1) organic and systemic functions, (2) structural changes, (3) causative agents and (4) serologic and immunologic reactions. Color transparencies of typical hematologic smears of the peripheral blood and bone marrow in various conditions are included. A pamphlet giving information on normal and interpretive values of various tests will be made available for distribution to visitors.

Flicker Photometry in Cardiovascular Disease

A. C. IVY and L. R. KRASNO, University of Illinois College of Medicine, Chicago.

The exhibit presents a sturdy accurate flicker photometer suitable for office use together with a demonstration of the results of its use in patients with cardiovascular disease. The

"nitroglycerin-flicker test" detects the presence of a vasospastic state in the retina and appears to be of value in the diagnosis, prognosis and therapy of cardiovascular disease.

Cutaneous Patterns of Violence

JESSE L. CARR, University of California School of Medicine and INSPECTOR F. LA TULIPE, San Francisco Police Department, San Francisco.

Photographs and charts show wound, laceration and contusion patterns from trauma by various types of instruments both from accidental contact and in criminal violence. The work is a combined effort of the University of California Department of Criminology, the California Institute of Forensic Sciences, the Medicolegal Department of the Medical School, the San Francisco Police Department and the San Francisco Coroner's Office.

A New Polychrome—Preparation and Use

BENJAMIN T. TERRY, Tacoma, Wash.

Directions for making polychrome methylene blue and the stain itself have been greatly improved. Ammonia is so volatile its strength is now determined immediately before each use. Other changes have been made. The new polychrome is richer in red and is a mixture of polychromes made at the same time but differing in the degree of ripeness. The various steps in making the polychrome stain will be demonstrated and the new stain will be shown under the microscope on razor sections cut at the exhibit on a small, plastic, pocket size microtome. Anyone who will follow directions accurately should now be able to make with ease and certainty a beautiful and very rapid stain for frozen and razor sections of tissue.

Neoplasia and Hyperplasia in Rats—Results of Chronic Injection

HENRY D. MOON, MIRIAM E. SIMPSON, CHOH HAO LI and HERBERT M. EVANS, Institute of Experimental Biology, University of California, Berkeley, Calif.

Plateaued female rats were given injections of pituitary growth hormone for long periods. Many neoplastic and hyperplastic changes occurred in the tissues of these rats, whereas no similar changes occurred in the control of rats given injections of albumen. Lymphosarcomas arising in the lungs were present in 6 of 15 rats and peribronchial lymphoid hyperplasia occurred in all rats treated with growth hormone. Hyperplasia of the adrenal medulla occurred in all experimental rats. Large nodular as well as focal areas of atypical (neoplastic) hyperplasia in 10 of 15 experimental rats. Practically all of the growth hormone injected rats had fibroadenomas of the mammary tissue. Two of the rats had bizarre ovarian neoplasms.

Armed Forces Institute of Pathology

BRIG. GEN. RAYMOND O. DART, Armed Forces Institute of Pathology, Washington, D. C.

An illustrated presentation of the features and responsibilities which make this redesignated and reorganized institute an activity and a resource of great significance to civilian and military medicine. It is now jointly operated by the Armed Forces and serves as a central laboratory for the Veterans Administration.

Blood Diseases—Clinical and Hematologic Manifestations

CARROLL L. BIRCH and LOUIS R. LIMARZI, University of Illinois College of Medicine, Chicago.

The blood, bone marrow and clinical characteristics of the common hematologic diseases are shown by slide projectors and color transparencies. In a viewing box a duplicate set of sixty transparencies is displayed for detailed study.

Measurement of Peripheral Arterial Circulation

CARL A. JOHNSON, St. Luke's Hospital and University of Illinois College of Medicine, Chicago.

An instrument for the graphic recording of the peripheral arterial circulation will be demonstrated. The circulatory effects of smoking will be projected on the screen from subjects chosen at random from the audience. Lantern slides will be projected on the screen to supplement the demonstration. Records from normal patients as well as from patients with cardiovascular disease will be posted. A method for measuring the speed of the pulse wave with this instrument will also be shown with illustrative records.

Cytologic Diagnosis of Cancer

HERBERT F. TRAUT, JAMES F. RINEHART, MILTON ROSENTHAL, SEYMOUR M. FARBER, LEWIS MORRISON, WILLIAM J. KERR and MORRIS E. DAILEY, University of California Hospital, San Francisco.

The exhibit consists of photomicrographs and color transparencies showing diagnostic cells taken from positive smears. Cell types from various sources as well as cells which show the various diagnostic criteria of malignancy as seen in smeared cells are shown. Microscopes with smears showing classified cells will be available. The preparation, staining and screening of material taken from various sources will be demonstrated, with an explanation of the various technical aspects of the cytologic method and related problems.

Section on Nervous and Mental Diseases

The representative to the Scientific Exhibit from the Section on Nervous and Mental Diseases is A. B. BAKER, Minneapolis.

Cerebral Angiography

GEORGE W. SMITH and L. O. J. MANGANIELLO, University Hospital, Baltimore.

This exhibit includes the historical background of cerebral angiography. The technic is described and demonstrated. The indications and contraindications as well as the untoward effects are listed on posters. The anatomy of the cerebral vascular tree is demonstrated in an artist's drawing and by specimens injected with a contrast medium. The normal cerebral angiogram and representative cerebral angiograms with case histories are demonstrated in patients having aneurysms of the circulus arteriosus, verified brain tumors, brain abscesses, Sturge-Weber disease, porencephaly, hydrocephalus and anomalous cortical vessels. In cases in which a correlative pathologic brain specimen or biopsy is available these are presented.

Psychiatric Treatment in General Hospitals in United States and Canada

A. E. BENNETT, Berkeley, Calif.

Results of a survey of all psychiatric facilities existing in general hospitals are shown. Advantages and disadvantages of such departments are given. Illustrative department model plans from various areas display the physical, organizational and personnel that make up a complete, adequate department. Partial service units are also described. The future needs, percentage of beds, personnel and departments now in planning are shown.

Treatment of Intracranial Aneurysm

HAROLD C. VOSS, Mercy Hospital and the Stritch School of Medicine of Loyola University, Chicago.

The rationale of the surgical treatment of intracranial aneurysm in various locations is illustrated by large charts. Arteriograms of typical aneurysms and drawings and photographs of surgical procedures and anatomic specimens are included. An evaluation of internal carotid ligation and direct intracranial attack on intracranial aneurysm is made. The use is stressed of preoperative angiography in verifying the presence and location of an aneurysm and in aiding in the determination of the adequacy of the collateral circulation.

Neurosyphilis—Treatment with Penicillin and Malaria Therapy

WINFRED OVERHOLSER, St. Elizabeths Hospital, Washington, D. C.

Two groups of patients will be presented: (*a*) patients treated with penicillin and (*b*) patients treated with both penicillin and malaria. Material obtained six months, one, two,

V 1
195

three, four and five years after treatment will be shown. The effects of treatment on the cerebrospinal fluid, correlated with clinical data, will be demonstrated.

Cerebral Localization by Electroencephalogram

LESLIE B. MANN JR., Institute of Nervous Diseases and College of Medical Evangelists, Los Angeles.

This exhibit consists of models and charts indicating localization of cerebral lesions on the basis of electroencephalographic findings. The various factors involved in the production of false and true localizing records are considered. Included in the group of tracings will be pertinent records showing changes produced by verified organic lesions including neoplastic, vascular, traumatic and degenerative diseases. Models and drawings show presumed mechanisms of alteration in the wave patterns.

Effect of Head Posture on Spinal Fluid Manometrics

LAWRENCE I. KAPLAN and FOSTER KENNEDY, New York.

This is a demonstration of a new diagnostic test, a modification of the Queckenstedt test, to detect early compression of the cervical cord. Jugular compression during manometric studies is performed several times, with the head flexed, extended, laterally flexed or rotated and in the neutral position. Subarachnoid block in one and not the other positions has been found in 15 cases showing normal results by the ordinary technic. These abnormalities have been correlated with the operative findings.

Methods for Studying Lobotomy

CHARLES E. HENRY and ROBERT E. ARNOT, The Institute of Living, Hartford, Conn.

This is a joint exhibit of clinical investigations of lobotomy patients. From the EEG laboratory corticograms taken before, during and after operation are demonstrated. A new "postage stamp" electrode permitting direct cortical recording throughout will be demonstrated on a brain model. From the psychologic laboratory, reports of preoperative and postoperative tests are shown. From the therapeutic research laboratory a method of critically interviewing lobotomy candidates will be demonstrated.

A Hypothesis of Schizophrenic Behavior

R. L. JENKINS and LUCY OZARIN, Veterans Administration, Washington, D. C.

This exhibit presents the causative elements and developments in the process of schizoid withdrawal and retreat into autistic phantasy leading to the progressive maladaptation and habit deterioration of the schizophrenic patient. Recent experimental work on animals demonstrating how repeated frustration produces stereotyped nonadaptive behavior is included. The reversal of these processes through modern psychiatric therapy is shown, illustrated by photographs of therapeutic activities in Veterans Administration hospitals.

Advances in Electroencephalography

F. A. GIBBS and W. D. STEPHENSON, Veterans Administration Hospital, Hines, Ill., and PEARCE BAILEY and H. A. KILDEE, Veterans Administration, Washington, D. C.

An eight channel Grass electroencephalographic instrument will be demonstrated; enlarged images of the tracings as they are made will appear on the wall of the booth; at the same time a transparent plastic brain will reveal by the use of lights the anatomic portion under examination. Geographic distribution of Veterans Administration installations having electroencephalographic laboratories and qualified personnel, type of instruction in electroencephalography given and contribution to the field of electroencephalography are shown.

Section on Dermatology and Syphilology

The representative to the Scientific Exhibit from the Section on Dermatology and Syphilology is FRANCIS W. LYNCH, St. Paul.

Leukoplakia of the Mouth—Differential Diagnosis

CLINTON W. LANE, St. Louis, ASHTON L. WELSH, Cincinnati, WALTER C. HEROLD, Colorado Springs and JOHN H. LAMB, Oklahoma City.

The color transparencies will be used to show the differential diagnosis of various stages and various locations of leukoplakia of the mouth, including the lips. Etiology, symptoms, prognosis and treatment will be included in the description of the different cases. A graphic exhibit will be included in the demonstration and a talk (tape recorder) on galvanism of the mouth.

Lipomelanotic Reticular Hyperplasia of Lymph Nodes

CLEVELAND J. WHITE, Stritch School of Medicine of Loyola University and THOMAS C. LAIPPLY, Wesley Hospital, Northwestern University Medical School, Chicago.

Chronic dermatitis, often localized, particularly when accompanied with pruritus, may result in a characteristic type of hyperplasia of lymph nodes. The microscopic features include distortion of the normal architecture, marked hyperplasia of the reticular cells, which contain melanin, sudanotropic droplets, with infiltration of eosinophilic cells. Fifteen cases of dermatitis accompanied with this type of lymphadenopathy are charted as to clinical features and course with illustrative microphotographs. Photographs of this nonspecific dermatitis and typical lymph node picture are presented.

Cancer of the Skin and Mucous Membrane—Methods of Treatment

C. F. LEHMANN, J. L. PIPKIN and A. C. RESSMANN, San Antonio, Texas.

The exhibit illustrates the various types of skin malignancies, showing the methods of treatment, such as surgical excision, electrocoagulation, cautery, roentgen ray, strong 10 mg. radium needles and the weak 1 mg. radium needles by means of colored transparencies and colored Kodachromes.

Sunlight and the "Cancer Skin"

CHARLES PHILLIPS and E. N. WALSH, Scott and White Clinic, Temple, Texas.

This is a study in the evolution of some types of precancerous lesions into actual carcinoma of the skin in persons whose skins have an unusual susceptibility toward the development of epithelioma, with sunlight as an extrinsic factor. It is demonstrated by moulages, drawings, photographs and photomicrographs of actual lesions. Accompanying legends describe this process as seen in a series of over 4,000 clinical cases.

Bromide Intoxication—Treated with a Diuretic Chloride

THEODORE CORNBLEET, University of Illinois College of Medicine and Cook County Hospital, Chicago.

Ammonium chloride (and related chlorides) was given to patients that had bromide eruptions and to volunteers that took bromides. Between times sodium chloride was given to them too by a set plan that alternated with the ammonium chloride. In this way comparisons were made, and results showed that ammonium chloride removes bromide from the body faster than sodium chloride. Ammonium chloride belongs to the so-called acid diuretic chlorides group. This exhibit uses drawings, graphs and figures to explain how and why these diuretic chlorides are superior to the sodium salt—the one that is standard for treating bromide eruptions today.

Dermatitis from Local Anesthetics

C. GUY LANE, Boston; RALPH LUTKART, II, Santa Barbara, Calif., and J. WALTER WILSON, Los Angeles.

Dermatitis caused by contact with local anesthetics is relatively common among dentists and in persons who use preparations containing such agents for the relief of itching. Cases of dermatitis due to local anesthetics reported in the literature are tabulated in this exhibit. The chemical composition of some of these agents is shown to indicate relationships which may account for multiple and cross sensitizations.

Melanin Pigmentation—Biochemistry and Clinical Applications

THOMAS B. FITZPATRICK, Mayo Foundation, Rochester, Minn., and A. BUNSEN LERNER, University of Michigan Medical School, Ann Arbor, Mich.

A summary of recent advances in the biochemistry of melanin formation is presented. The biochemical mechanisms underlying melanin formation are shown and the enzymatic processes involved therein are correlated with experimental and clinical observations on melanin pigmentation. The enzyme tyrosinase catalyzes the oxidation of the aromatic amino acid, tyrosine, to di-hydroxyphenylalanine (dopa) and the oxidation of dopa to melanin. Tyrosinase is widely distributed in nature and has been demonstrated in plants, insects, marine animals and more recently in mammalian tissues including human skin. On the basis of the biochemical data presented and with the help of color photography, certain clinical syndromes associated with increased or decreased melanin pigmentation are explained. These include Addison's disease, the role of the pituitary in human melanin pigmentation, the use of locally applied chemical inhibitors of melanin pigmentation in human subjects and generalized melanin pigmentation associated with metastatic melanoma and melanuria.

Blood Factor in Acute Disseminated Lupus Erythematosus

JOHN R. HASERICK and LENA A. LEWIS, Cleveland Clinic, Cleveland.

The blood factor in lupus erythematosus which induces the clumping of leukocytes and the lupus erythematosus cell when added to normal human or dog marrow or cellular concentrates of peripheral blood will be illustrated. It will be shown that the lupus erythematosus factor is directly associated with the gamma globulin fraction of the plasma. Investigations on other characteristics of this factor will be presented. Emphasis will be placed on the technic of using blood and bone marrow preparations as indicators of the presence of the lupus erythematosus factor. The plasma L. E. test, based on the identification of the L. E. factor, will be illustrated and its value in the diagnosis of systemic lupus erythematosus will be shown.

Photography in Dermatology

PAUL FASAL, San Francisco.

The technic of close-up photography with 35 mm. cameras enabling dermatologists to take Kodachromes of skin lesions in office or while doing field work is demonstrated. Drawings, photographs and tables explain various types of equipment and light sources. Kodachrome transparencies of clinical lesions and histopathologic slides document the various applications of photography in dermatology. These cover a wide range of dermatoses, as observed by a dermatologist in office and clinics, on house and hospital calls and while doing postgraduate and research work at home and abroad. The creation of a central registry for dermatologic photographs is advocated.

Section on Preventive and Industrial Medicine and Public Health

The representative to the Scientific Exhibit from the Section on Preventive and Industrial Medicine and Public Health is PAUL A. DAVIS, Akron, Ohio.

Ringworm of the Scalp Caused by Trichophyton Sulfureum

EVERETT R. SEALE and J. B. RICHARDSON, Houston, Texas.

The exhibit includes photographs, cultural findings, incidence, photomicrographs of hairs and the results of treatment of ringworm of the scalp caused by T. sulfureum.

Amebiasis

E. W. DENNIS, D. A. BERBERIAN and JOHN W. HABY, Sterling-Winthrop Research Institute, Rensselaer, N. Y.

The exhibit presents a description of the distribution of amebiasis and the incidence of the disease in various countries, explained by charts and graphs showing that amebiasis is not a tropical disease but is found in the northern portions of the United States as well as Canada in approximately the same amount as in the southern portions of the United States. A history of treatment and a description of laboratory methods of diagnosis is given. A demonstration is given showing Endameba histolytica and the comparative nonpathogenic ameba.

Q Fever

ROBERT J. HUEBNER, EDWARD BEEMAN and LAURI LUOTO, National Institutes of Health, Bethesda, Md.; JAMES H. STEELE, Communicable Disease Center, Atlanta, Ga., and WILLIAM L. JELLISON, Hamilton, Mont.

The exhibit presents a review of present knowledge of Q fever, its distribution in the United States and elsewhere and its clinical and epidemiologic features. Special emphasis is given to studies of the disease in California, where it is endemic.

The Community Health Council

THOMAS D. DUBLIN, National Health Council, New York.

This exhibit shows how medical and other groups in the community can work jointly for better health through the medium of the community health council.

Chloramphenicol Therapy in Chronic Ulcerative Colitis (One Year Study)

Z. T. BERCOVITZ and THEODORE BAWER, New York University-Bellevue Medical Center, Post-Graduate Medical School, New York.

A study of the clinical progress of 24 patients observed for one year reveals that 67 per cent of all patients suffering from chronic ulcerative colitis show either pronounced or moderate improvement during the first month of observation, only 33 per cent failing to show any favorable change. There was decided inhibition of the growth of both Escherichia coli and streptococci from the first to the fourteenth day of chloramphenicol therapy. After the fourteenth day, there was, in spite of continued administration of chloramphenicol, a reversal of the bacterial flora, both quantitatively and with respect to the cultural characteristics. There is no apparent causal relationship between the bacterial flora, as determined by the usual cultural methods, and the clinical response, which seems to be generally favorable. Chloramphenicol therapy is of definite value in the initial treatment period and in subsequent relapses. Chloramphenicol can be used repeatedly and for prolonged periods without evidence of toxic side reactions. In the post-therapy period, patients continued to be improved for extended periods of time, both symptomatically and sigmoidoscopically.

Section on Urology

The section exhibit committee of the Section on Urology consists of JOHN H. MORRISSEY, New York, chairman; ROGER W. BARNES, Los Angeles, and W. W. SCOTT, Baltimore.

Biopsy of the Kidney for Suspected Neoplasm

HENRY M. WEYRAUCH, JAMES L. GOEBEL and J. BRANDON BASSETT, Stanford University School of Medicine and Veterans Administration Hospital, San Francisco.

Although biopsy of the kidney is condemned as being hazardous, a method has been developed and its safety proved by the experimental use of radioactive isotopes. Nine illustrative cases demonstrate the clinical application of the method.

Ureteral Injury—Diagnosis and Treatment

ROBERT J. PRENTISS and RALPH B. MULLENIX, San Diego.

The exhibit is based on the office experiences in the treatment of 24 private patients who have suffered injury to the ureter during open surgical treatment. The methods of diagnosis, principles, methods and results of treatment are presented.

Obstruction of the Aglomerular Kidney

FRANK HINMAN JR. and STANWOOD S. SCHMIDT, University of California School of Medicine, San Francisco.

Since atrophy of the kidney due to hydronephrosis is not comparable to atrophy following obstruction in other organs, experiments were conducted on kidneys of aglomerular fish, the principal difference from mammalian kidneys being the absence of glomeruli and their mechanical filtration. The pertinent features of hydronephrosis in the glomerular mammalian kidney are illustrated through the use of charts and illustrations and compared with the results of obstruction of the primary excretory duct of the aglomerular fish, Porichthys notatus. Photomicrographs and retrograde pyelograms show the results in this fish. Living specimens of marine teleosts with aglomerular kidneys will be exhibited.

Transurethral Prostatectomy—Nesbit Technic

ROBERT T. PLUMB, San Diego, Calif.

The exhibit presents a series of painted clay models which have been sculptured to show various steps in transurethral prostatectomy.

A Substitute Bladder and Urethra Using Isolated Cecum as Bladder and Ileum as Urethra

JAMES W. MERRICKS, R. K. GILCHRIST, HOWARD H. HAMLIN and I. T. REGER, University of Illinois College of Medicine, (Rush), Presbyterian Hospital, Chicago.

An exhibit of charts depicting (1) historical background, (2) indications for the procedure, (3) the results of animal (dog) experiments, with gross specimens, (4) photographic enlargements of illustrations of technic for isolating cecum and terminal ileum, ureterocecostomy, restoration of bowel continuity by ileocolostomy and dermal ileostomy with control of urine by ileocecal valve and (5) clinical histories with photographs of urograms.

Section on Orthopedic Surgery

The representative to the Scientific Exhibit from the Section on Orthopedic Surgery is ROBERT J. JOPLIN, Boston.

Sling Procedure for Correction of Splay Foot, Hallux Valgus and Metatarsus Primus Varus Deformities

ROBERT J. JOPLIN, Massachusetts General Hospital, Boston.

This operation was devised to correct splay foot, hallux valgus and primus varus deformities and to relieve the so-called metatarsalgia produced by depressed metatarsal heads. The technic of the operation consists of transplanting the adductor hallucis muscle through the neck of the first metatarsal and protecting this muscle by passing the fifth extensor tendon across the foot beneath the necks of the metatarsals to maintain the corrected position of the foot. This tendon is used also to reef the capsule of the first metatarsophalangeal joint on its medial side, thus correcting the valgus position of the great toe. The lateral head of the flexor hallucis brevis muscle is carefully preserved together with its sesamoid to prevent overcorrection or a varus position of the great toe. Thus, the normal length of the great toe is maintained while its take-off strength is preserved. The head of the first metatarsal is restored to its normal anatomic position over its two sesamoids. The spreading of the foot is reduced and the calluses beneath the metatarsal heads disappear. Since October 1947, there have been 102 sling procedures performed on 69 patients. Roentgenograms and photographs of feet before and after operation will be shown.

The Clinical Significance of the Contact-Compression Factor in Bone Surgery

G. W. N. EGGERS, THOMAS O. SHINDLER and CHARLES M. POMERAT, University of Texas—Medical Branch, Galveston.

The exhibit consists of microscopic studies of surgical fracture sites showing osseous activity with bony union in surgical fracture sites where the bone is under a contract-compression factor. It shows in the same bone in the same animal, under identical conditions within microscopic distance, that the surgical fracture site without compression contact shows no evidence of active union. The conclusions in regard to the desirable influence are demonstrated in experimental animals (rats). The use of the internal contact splint and principles involved in accomplishing the clinical application of the contact-compression factor will be demonstrated. Other illustrations and diagrams showing the use of the factor with such operative procedures as fusions of the knees, the spine and the hip and similar demonstrations will be presented.

Bone Metastases of Neurogenic Tumors of the Sympathetic Nervous System in Children

E. WILLIAM IMMERMANN and EDWARD L. COMPERE, Children's Memorial Hospital, Chicago.

The exhibit deals with a study of 32 cases of neuroblastoma treated at Children's Memorial Hospital over a period of 25 years (1924-1949). Fourteen of these cases had evidence of bone metastases, eleven had no bone changes and seven cases were undetermined. Transparencies show roentgenograms, patients gross and microscopic pathology of those cases with bone metastases. Charts show the statistical analysis of the primary site of the tumor, orthopedic complaints, age and sex. The skull and the long bones were the primary sites of predilection of the metastases. The bone changes observed were multiple, localized or diffuse destructive lesions in the metaphysis of long bones, the pelvis and the skull.

Suction Socket Prostheses

CHARLES O. BECHTOL, University of California and Veterans Administration, Berkeley.

The purpose of this exhibit is to demonstrate the latest technics in the actual fabrication of the suction socket prosthesis as well as many of the common errors in fitting and alinement of this type prosthesis. Live demonstrations will be presented. The exhibit also includes the latest development in upper extremity prostheses and other timely research.

Tarsal Anomalies and Peroneal Spastic Flat Foot

FREDERICK S. WEBSTER and W. M. ROBERTS, Lincoln Orthopædic Clinic, Lincoln, Neb.

This is an exhibit of certain bony congenital anomalies of the foot which are responsible for the majority of cases of so-called spastic flat foot. The clinical significance of these anomalies has been almost completely ignored, and until recently they have generally not been recognized. Photographs of feet from a diagnostic clinical standpoint are shown, as well as roentgenograms and photomicrographs of the anomalies themselves. The various clinical syndromes are enumerated, as well as the indicated treatment of each.

Methods of Mechanical Retardation of Length Growth of Bone

S. L. HAAS, Stanford University School of Medicine, San Francisco.

The exhibit shows experimental work performed on dogs in which three methods were used to hinder length growth: (1) wire loop about the epiphyseal cartilaginous plate, (2) staples placed about the epiphyseal cartilaginous plate and (3) nails or pins passed across the epiphyseal cartilaginous plate. Studies were made to determine whether normal or partial growth took place after removal of the restriction. Unilateral restriction of growth was also studied.

Vascular Complications in Orthopedic Surgery

DONALD S. MILLER and LEO MARKIN, Chicago Medical School, Chicago.

The exhibit presents a résumé of the complications seen in a large hospital. The diagnosis of vascular conditions, classification of complications and treatment are included. This is a simple approach to a relatively common problem.

Hansen's Disease (Leprosy)—Orthopedic Manifestations and Treatment

J. WARREN WHITE, LIEUT. JACK W. MILLAR (USN) and RICHARD S. DODGE, Honolulu, Hawaii.

The exhibit shows photographs of typical deformities, diagrams explaining development of deformities resulting from anatomic position of lesions, charts showing changing of treatment and prophylactic measures employed against typical complications.

Section on Gastro-Enterology and Proctology

The representatives to the Scientific Exhibit from the Section on Gastro-Enterology and Proctology are EVERETT D. KIEFFER, Boston, and J. P. NESSELROD, Evanston, Ill.

Adenomas of Colon and Rectum

ROBERT TURELL, Beth Israel and Harlem Hospitals, New York.

The exhibit depicts all types of adenomas of the colon and rectum, namely, the sessile and pedunculated, small and large, lobulated and villous, benign and malignant, and the electrothermic and surgical technics of removal. Colored lantern slides showing a variety of pathologic specimens and a latex model are included.

Antienzymatic Substances in the Treatment of Peptic Ulcer (A New Compound with Antitryptic, Antipeptic and Antilysozyme Properties)

LEO L. HARDT and JOSEPH C. CALANDRA, Stritch School of Medicine, Loyola University and Northwestern University Medical School, Chicago.

The recent discoveries of newer compounds which inhibit the enzymatic action of pepsin, trypsin and lysozyme have added to the efficacy of the antacid therapy in patients with gastric and duodenal ulcer. The addition of one of these compounds to the older antacid combinations, such as aluminum hydroxide and magnesium trisilicate, have increased the efficacy of the medical management of peptic ulcer, particularly duodenal. The resulting new mixture has antitryptic, antipeptic and antilysozyme activity. A description of the new compound and its physical chemical properties, as well as photographs of its electrophoretic patterns, are presented. Roentgenograms and gastroscopic studies showing coating action of the new compound and curves showing the comparative antacid effects between the new compound and mucin are also presented.

Common and Acute Anal Lesions—Stereoscopic Kodachrome Presentation

DAVID MILLER, College of Medical Evangelists, Los Angeles.

The more common anal and anorectal lesions in the living human are shown on Kodachrome slides stereoscopically, thus illustrating the lesions in three dimensions. Charts and posters illustrate the more common acute anal and anorectal lesions, stressing the need of emergency treatment of these conditions.

Plasma Proteins in Liver Disease — Electrophoretic Determinations

H. R. ROSSMILLER and JOHN F. WHITMAN, Cleveland Clinic, Cleveland.

The plasma proteins have been determined electrophoretically in normal persons and are compared with those occurring in patients with hepatitis, cirrhosis and extrahepatic obstructive jaundice. Significant differences are apparent. The protein pattern of plasma is correlated with several liver function tests.

Functional Morphology of the Liver

HANS ELIAS, Chicago Medical School, Chicago.

The cord concept of liver structure is shown to be untenable. The liver consists of anastomosing plates, one cell thick. These enclose the hepatic lacunae in which the sinusoids are suspended. The portal canals are surrounded by a continuous, limiting plate which consists of hepatic cells. The ramification of the portal veins is shown. The hepatic artery supplies, separately, the paraportal and the central parts of the lobules. The bile canaliculi have solid walls of their own. The exhibit consists of drawings, models, photographs and specimens.

Clinical Manifestations and Management of Jaundice

FREDERICK STEIGMANN, KARL A. MEYER, HANS POPPER, EDWIN STEVENS and ROBERT GOLDBLOOM, Hektoen Institute of Cook County Hospital, University of Illinois College of Medicine and Northwestern University, Chicago.

Drawings, photomicrographs and tables present a workable scheme for the differential diagnosis of jaundice by clinical methods and independently by laboratory procedures. The results of these two diagnostic approaches are correlated. Furthermore, a classification of jaundice is presented by evaluation of the etiologic factors against the background of the clinical and laboratory features. Based on these factors, an applicable plan of therapeutic procedure is outlined.

Chronic Ulcerative Colitis—Its Allergic Aspects

ALBERT H. ROWE, ALBERT H. ROWE JR. and ROBERT W. TUFFT, Oakland, Calif.

Statistics on 102 cases studied during a 14 year period show incidence of allergy in the personal and family histories, frequency of positive dietary and drug histories of allergy, the occurrence of complications, fever and arthritis and skin reactions to foods and inhalants. Outline of the treatment stresses the control of food and inhalant and drug allergies and the administration of transfusions, sulfonamide and antibiotic drugs as indicated. The elimination diets used for the control of food allergy in moderate and fulminating cases will be shown. Charts showing reduction of fever, diarrhea with all medications, transfusions and graphs of blood cell counts will be exhibited demonstrating the major role of allergy alone or associated with infection in this disease.

Section on Radiology

The representative to the Scientific Exhibit from the Section on Radiology is S. W. DONALDSON, Ann Arbor, Mich.

Simplified Procedure for Percutaneous Intracranial Angiography

DANIEL KORNBLUM and JOHN DREW, Veterans Administration Hospital, Framingham, Mass.

Visualization of the cerebral vessels is being used with increasing frequency as a means of diagnosis. Interpretation of films lies in a specialized field and the performance of the actual test has been regarded as difficult. The use of percutaneous angiography has greatly simplified the procedure, but this fact is not generally known or appreciated by the medical profession at large, since nearly all information on the subject has appeared in specialty journals. The purpose of this exhibit is to familiarize the profession with the ease, simplicity and safety of the cerebral angiography as carried out by injection of contrast substance into the carotid artery directly through skin.

Some Modern Aspects of Radiologic Research

CAPT. C. F. BEHRENS (MC, USN), COMDR. JOHN L. TULLIS (MC, USN), COMDR. E. P. CRONKITE (MC, USN), COMDR. H. C. DUBLEY (MSC, USN) and LIEUT. COMDR. F. W. CHAMBERS (MSC, USN), United States Naval Medical Research Institute, Bethesda, Md.

This exhibit displays methods for calibration of instruments and equipment used in radiologic research, handling and use of radioactive isotopes in the study of body functions, diagnosis and treatment of disease and treatment of ironizing radiation injuries.

Cancer of the Tongue—Diagnosis and Treatment

GEORGE S. SHARP, FRANK C. BINKLEY, EUGENE W. DEMAREE, ROBERT C. WOOD and HERBERT F. WILLIAMS, Pasadena, Calif.

The recognition of every abnormal pathologic process and prompt biopsy for a definite microscopic diagnosis is imperative to increase the five year cure rate by the present methods with radium, roentgen ray and surgical treatment. Precursory lesions are shown with their prophylactic therapy. All clinical types of cancer are presented, and actual radiation technics are shown with physical calculations of the tumor doses required for the various tumors.

Cerebral Arteriography

C. R. HUGHES, R. E. WISE and J. R. HANNAN, Cleveland Clinic Foundation, Cleveland.

This is an exhibit of representative cases from a review of 150 cerebral arteriograms, showing localization of tumors by vascular displacement, tumor stains associated with various neoplasms, arteriovenous anomalies and aneurysms with a description of technic.

Accessory Sacroiliac Articulations with Arthritic Changes

LEE A. HADLEY, Syracuse, N. Y.

Accessory articulations may occur between the ilium and the sacrum in addition to the normal sacroiliac joints. The most common is an articular facet which projects downward and medially from the posterior superior iliac spine to a point on the sacrum just lateral to the second posterior sacral foramen. Arthritic changes noted were narrowing and irregularity of joint space, exostoses of the joint margins and sclerosis of underlying bony tissue. Some of the joints become ankylosed. Most of these patients complain of low back pain, and some of them indicate the vicarious joint as tender to deep pressure. A review of the radiographic studies of 200 consecutive private patients having these symptoms revealed 33.5 per cent showing evidence of accessory sacroiliac articulations. Arthritic changes were seen in 36 per cent of these joints. The exhibit consists of dissected specimens and radiographs illustrating this condition.

Nasopharyngeal Irradiation—The Relative Merits of Roentgen and Radium Therapy for Benign Conditions

L. H. GARLAND, H. A. HILL, MARTHA E. MOTTRAM and M. A. SISSON, San Francisco.

Charts demonstrate the anatomy of the nasopharynx and the pathology of lymphoid hyperplasia, also comparative dosage with radium and roentgen therapy and the advantages and disadvantages of both.

The Role of Radioactive Isotopes in the Private Clinic

THOMAS B. CARLILE, JOHN H. WALKER, JOSEPH H. CRAMPTON, C. S. STONE JR., HUGH W. JONES, RANDOLPH P. PILLOW and WILLIAM HANNAH, Mason Clinic, Seattle, Wash.

Charts show organization and personnel of Isotope Department, as well as equipment required, training of personnel, special requirements and utilization of isotopes.

Section on Anesthesiology

The representative to the Scientific Exhibit from the Section on Anesthesiology is SCOTT M. SMITH, Salt Lake City.

Automatic Encephalographic Control of Anesthesia

R. G. BICKFORD, ALBERT FAULCONER JR., D. E. SOLTERO and C. W. MAYO, Mayo Clinic, Rochester, Minn.

The exhibit demonstrates a new method for the control of general anesthesia in animals and in man. The method employs the electroencephalogram, which has been shown to provide a reliable index of anesthetic depth, to regulate the dosage of anesthetic agent (ether or barbiturate). By this means smooth anesthesia of any desired depth is automatically maintained by a system which continuously compensates for any deviations from the required level. The automatic control is sufficiently accurate to maintain an uninterrupted state of anesthesia for periods up to three days in animals. It has been applied successfully to the maintenance of ether anesthesia in man.

Endobronchial Anesthesia for Intrathoracic Surgery

JOHN J. BONICA and PHILLIP H. BACKUP, Tacoma General Hospital, Tacoma, and WILLIAM M. HALL, Vancouver, B. C., Canada.

The exhibit demonstrates the technics of endobronchial intubation for one-lung anesthesia which may be used for various intrathoracic surgical procedures, particularly pneumonectomy and the surgical treatment of lung abscess and bronchopleural fistula. The exhibit consists of a plastic model of the tracheobronchial tree to which have been attached rubber models of the lungs, which are expansible. Various types of endobronchial tubes are also shown. The technics of "blind" and direct vision endobronchial intubation can be demonstrated. After the tube is in the proper bronchus, it is connected to a gas machine and the intubated lung is inflated, showing the selective collapse of the "diseased" side. Drawings, photographs and roentgenograms also show the technic.

Pharmacodynamics of *d*-Tubocurarine Chloride

FRANK J. MURPHY, R. C. GILL, GEORGE DUNDAS, P. J. BAILEY and H. FARQUHARSON, University of California School of Medicine, San Francisco.

The exhibit presents (1) botanic specimens and artefacts showing ethnobotany, (2) crude curare specimens, (3) specimens showing steps in refining and pharmacologic evaluation of curare extractives, (4) charts showing nonanesthetic uses of curare, (5) charts showing chemistry of early curare preparations which were and are used clinically and (6) graphs, charts and photographs showing present methods of evaluation and analysis of chemically pure *d*-tubocurarine chloride and its pharmacodynamics.

Regional Methods of Anesthesia for Surgery, Diagnosis and Therapy

JOHN W. PENDER, JOHN S. LUNDY, R. C. ADAMS and D. G. PUGH, Mayo Clinic, Rochester, Minn.

Exhibit shows technic of regional methods of anesthesia and their application to (1) surgery and (2) injection of various agents used in diagnostic and therapeutic blocks. It consists of two life-size models showing the needles in proper position for various types of nerve blocks. The technics illustrated will be exemplified by a series of abstracts of case histories and roentgenograms showing needles in position for (1) diagnostic injections of a variety of agents for the definition of pain pathways as an aid in the selection of the most effective therapy, such as therapeutic injection, radiotherapy and neurosurgery, and (2) therapeutic applications of these technics.

Spinal Anesthesia for Cesarean Section

JOHN ADRIANI, DOUGLAS BATTEN and W. BRANKS STEWART, Charity Hospital, New Orleans, La.

Photographs and diagrams illustrate the technic, complications and their management. Emphasis is placed on the hazards of spinal anesthesia in cesarean section and the factors influencing its safety.

Tetracaine Hydrochloride for Nerve Block and Infiltration Analgesia

DANIEL C. MOORE, Mason Clinic, Seattle.

The exhibit shows the advantages of tetracaine hydrochloride as well as its low toxicity in dilute effective concentrations. Charts show the type of blocks, operations performed and the number of procedures as well as the physical status of the patients.

Section on General Practice of Medicine

The representative to the Scientific Exhibit from the Section on General Practice of Medicine is RICHARD MILLS, Fort Lauderdale, Fla.

Endocrine Factors in Infertility

SHELDON A. PAYNE and EDWARD T. TYLER, The Shelton Clinic, Los Angeles.

The exhibit presents charts and drawings summarizing the normal endocrine relationships in fertility of both male and female together with the more common disturbances of these relationships which result in sterility of both sexes. Therapeutic results in such disturbances as failure of ovulation, threatened and habitual abortion, defective spermatogenesis and impotence are outlined and analyzed.

Studies in Prognosis

LOUIS I. DUBLIN and EARL C. BONNETT, Metropolitan Life Insurance Company, New York.

Charts show statistics of mortality among persons with specific history of disease or findings reported or discovered on insurance examination. The groups include persons with elevated blood pressure, cardiac murmurs and gallbladder disease and those given a glucose tolerance test. Factors influencing the prognosis will be shown. This material illustrates the type of information on prognosis available from life insurance records as well as the factual basis of life insurance medicine.

Two Animal-Human Parasites—Life-cycles, Diagnosis, Effects and Prevention

C. D. VAN HOUWELING, J. S. BENGSTON, E. A. BENBROOK, R. J. CYBOG and J. V. LACROIX, American Veterinary Medical Association, Chicago.

The exhibit emphasizes the prevention of Trichinella spiralis and Cysticercus bovis infections in man. Photomicrographs, photographs, specimens and drawings depict the parasites, their life cycles, effects in swine, cattle and human beings, methods of diagnosis and the importance of cooking meats to specified temperatures.

Illustrations of a Common Type of Cancer

E. LAWRENCE KEYES and HYMAN J. GOLDMAN, St. Louis University School of Medicine, St. Louis.

The exhibit consists of a photograph plus descriptive charts.

Treatment of Superficial Cancer by General Practitioner

CHARLES F. SHERWIN, St. Louis University School of Medicine and Barnard Free Skin and Cancer Hospital, St. Louis.

For skin and lip cancer of the squamous and basal cell variety, simple excision under local anesthesia with a margin of 1 cm. of normal tissue with immediate suture suffices to cure the average small cancer, provided full thickness of skin be excised. Suture is often unnecessary on the face; simple cautery excision of full thickness skin with a minimum 7 mm. margin beyond the visible and palpable border proves adequate. Wounds heal readily, though slowly; the ultimate scar is as good and often better than the scar resulting from skin graft to the face. Skin grafting is rarely necessary for the smaller lesions the average practitioner is apt to encounter. Melanoma requires much wider excision and should not be attempted outside a hospital.

Section on Diseases of the Chest

The representative to the Scientific Exhibit from the Section on Chest Diseases is EDWIN R. LEVINE, Chicago.

Diagnostic Problem of Tuberculosis in Older Age

ROBERT J. ANDERSON, H. F. A. LONG, R. I. PEARCE and IRA LEWIS, United States Public Health Service, Washington, D. C.

The exhibit presents a series of roentgenograms of tuberculosis pathology among persons in older ages who came to physicians as a result of symptoms attributed to other conditions, like asthma, bronchitis and catarrh.

Granulomas of the Lung—Bacteriologic and Pathologic Study of Resected Lesions

LYLE A. WEED and L. B. WOOLNER, Mayo Clinic, Rochester, Minn.

Pulmonary granulomas may appear grossly as (*a*) solid spherical nodules, (*b*) diffuse infiltrating or (*c*) cystic lesions. Histologic examination of such tissues is frequently nonspecific. A definitive diagnosis must be made before rational chemotherapeutic treatment can be carried out. This requires isolation and identification of the causative agent. To do this, it is necessary to make a thorough bacteriologic study of the surgically removed specimen. This exhibit presents (*a*) gross morphology and histopathology of surgically resected pulmonary granulomas, (*b*) method of bacteriologic examination of such tissue and (*c*) types of causative agent identified.

Plastic Sponge in Surgical Treatment—Its Use in Pulmonary Tuberculosis

ALLAN HURST, JOHN B. GROW, HAROLD M. PERLMUTTER and SAMUEL LEVINE, National Jewish Hospital, Denver.

Experimental work with plastic sponges of various types has been done in animals, particularly dogs. The authors used vinyl copolymer, formalinized polyvinyl alcohol, cellulose and others. The first two types have been used in extrapleural operations as plombage substance in humans. The exhibit consists of charts, photographs, microphotographs and roentgenograms both of experimental work and work with patients.

Paraaminosalicylic Acid (PAS)—Chemotherapy in Tuberculosis

EMIL BOGEN, ARTHUR DJANG and DRAKE WILL, Olive View Sanatorium, Olive View, Calif.

Fifty samples of PAS from various sources are shown and their physical and chemical properties compared. The development of this treatment is briefly reviewed. In vitro and in vivo experimental results are summarized. Clinical experiences with PAS, administered in different ways, alone and together with streptomycin, in the treatment of tuberculosis are described.

Postmortem Pneumothorax—Study of Chest Mechanics

DAVID SALKIN, Hopemont Sanitarium, Hopemont, W. Va., and the West Virginia University School of Medicine, Morgantown, W. Va.

Artificial pneumothorax was induced in cadavers with extensive pulmonary tuberculosis. Many of the results obtained were strikingly similar to those seen in living patients with pneumothorax. The chief observations included movement of the bony thorax, movement of the diaphragm, changes in the shape and position of the heart, mediastinal herniation, selective pulmonary collapse, lobar atelectasis and decrease in size of pulmonary cavities. Since these effects occurred in cadavers, the importance of the purely mechanical aspects involved in pneumothorax is stressed. These findings are discussed from the standpoint of their contribution to the physiology of pneumothorax, roentgen interpretation and clinical application.

New Concepts of Bronchial Neurophysiology and Their Clinical Applications

KARL P. KLASSEN, DOUGLAS R. MORTON and GEORGE M. CURTIS, Ohio State University, Columbus.

Certain new concepts of bronchial neurophysiology evolved by bronchoscopic and roentgenographic studies before and after high vagus transection are presented. The presence and referral of pain of tracheobronchial origin was demonstrated by electrical stimulation through a bronchoscope. High unilateral vagus section immediately below the recurrent laryngeal nerve not only abolished pain but also cough from the homolateral bronchial tree without impairment of tracheobronchial clearance and without any discernible effect on bronchial caliber. The latter finding was confirmed by the persistence of bronchospasm in patients with intractable asthma subjected to bilateral bronchial parasympathectomy. Accordingly, on the basis of the above clinical evidence, high homolateral vagotomy was

performed in a series of patients found to have inoperable bronchogenic carcinoma at the time of exploratory thoracotomy. Subsequent postoperative evaluation revealed substantial alleviation of pain and cough without untoward sequelae. Additional clinical application of the above principle is being directed toward the control of intractable cough and pain of bronchial origin.

Section on Physical Medicine and Rehabilitation

The representative to the Scientific Exhibit from the Section on Physical Medicine and Rehabilitation is WALTER J. ZEITER, Cleveland.

Speech Rehabilitation

LAWRENCE J. LINCK and JAYNE SHOVER, National Society for Crippled Children & Adults, Inc., Chicago, and HERBERT KOEPP BAKER, American Speech and Hearing Association.

This exhibit will consist of four booths, each dealing with one aspect of speech therapy: (1) cleft palate, (2) articulation, (3) stuttering and (4) cerebral palsy. In each booth, a physician who specializes in the management of the particular speech defect and speech clinicians will demonstrate the appropriate methods of examination and speech therapy on a patient suffering from the condition under consideration.

Rehabilitation of the Amputee—New Developments and Research in Artificial Limbs

COMDR. T. J. CANTY (MC, USN), and CAPT. B. W. HOGAN (MC, USN), U. S. Naval Hospital, Mare Island, Vallejo, Calif.

Rehabilitation of the amputee is depicted by means of photographs and 8 amputees demonstrating training in the use of their prostheses. A display panel of the latest types of prostheses that have been developed at the artificial limb department of the U. S. Naval Hospital on Mare Island will be exhibited.

Total (Vocational) Rehabilitation—An Arm of Medical Practice

THOMAS B. MCKNEELY, Office of Vocational Rehabilitation, Washington, D. C.; SYDNEY S. NEUWICK, San Francisco, and HARRY D. HICKER, California Bureau of Vocational Rehabilitation, Sacramento, Calif.

Complete rehabilitation, ending with remunerative employment in a medically approved job, is presented as an arm of medical practice. Guidance, vocational training and job placement are available to any patient needing them to overcome job handicaps. Corrective medicine, surgery and psychiatry are provided by local rehabilitation agencies to the medically indigent, services being rendered by physicians of the client's own choice. The use of the patient's own surgeon, physiatrist and limbmaker is demonstrated in a clinical setting which can be duplicated in every sizable community in the United States. The demonstration will use San Francisco physicians as well as consulting demonstrators with clients of the local rehabilitation agency as patients. Vocational training of amputees is shown, using the machine lathe. As examples of the most severely handicapped, paraplegics will demonstrate medical and vocational steps in rehabilitation.

Self-Help Devices in Activities of Daily Living

GEORGE G. DEAVER, DONALD A. COVALT and HOWARD A. RUSK, New York University College of Medicine, New York.

The exhibit consists of photographs and models of self-help devices which can be utilized by physically handicapped persons to perform the basic activities of daily living. When physical improvement has reached a maximum, many persons are left with residual disabilities which make it impossible for them to perform functional activities without assistance, but the means of simple mechanical devices many times makes it possible for the physically handicapped person to perform the activities necessary in work and self care without assistance. (This exhibit was made possible through a research grant from the National Foundation for Infantile Paralysis.)

Rehabilitation of the Blind

LOUIS B. NEWMAN and RUSSELL WILLIAMS, Veterans Administration Hospital, Hines, Ill., and A. B. C. KNUDSON and CHARLES W. BLEDSOE, Veterans Administration, Washington, D. C.

This exhibit demonstrates the therapy by which the newly blinded are helped to master their disability at Hines Hospital. Two phases of this treatment will be shown: (1) physical conversion of common skills to performance without sight and (2) environmental factors whereby a suitable attitude toward life without sight is cultivated.

Pool Therapy in Poliomyelitis

HART E. VAN RIPER and CATHERINE WORTHINGHAM, National Foundation for Infantile Paralysis, New York.

The use of the therapeutic pool as a treatment medium for patients with poliomyelitis and other patients is the theme of the exhibit which features a one-quarter scale pool with basic equipment. The physical and physiologic principles underlying the technic of therapeutic exercise are stressed. Demonstrations of therapeutic exercises in the pool will be carried out in cooperation with the following staff members of the Orthopaedic Hospital in Los Angeles: CHARLES L. LOWMAN, SUSAN G. ROEN and ESTELLE MARTIN.

Basic Physiology of Skeletal Muscle and its Clinical Applications

KHALIL G. WAKIM, EARL C. ELKINS and DONALD J. ERICKSON, Mayo Clinic, Rochester, Minn.

The properties, structure and function including electrical and chemical processes in normal muscle are correlated and demonstrated. Three common methods for the diagnosis, prognosis and assessment of therapy of lesions of the muscles are presented and appraised. The purpose, technic and results of these methods are described. Therapeutic exercise and electrical stimulation of muscles is presented from standpoint of purpose, methods and desired results. Data showing the effects of therapeutic exercise and electrical stimulation of normal, flaccid and spastic muscles on the circulation in the treated extremities are presented.

Newer Methods of Muscle Reeducation Employed in the Rehabilitation of Neuromuscular Disorders

HERMAN KABAT, O. LEONARD HUDDLESTON and RENE CAILLIET, Kabat-Kaiser Institute, Vallejo, Santa Monica, Calif., and Washington, D. C.

Patients having various types of neuromuscular disorders will be presented to demonstrate the newer methods of muscle reeducation. The physical medicine treatment of neuromuscular disorders such as multiple sclerosis, cerebral palsy, cerebellar disorders, anterior poliomyelitis and progressive muscular atrophy will be described and demonstrated. Photographs and charts showing some of the results accomplished by physical medicine and physical rehabilitation will be shown and discussed.

MISCELLANEOUS EXHIBITS

Aid to Physicians

R. O. BULLIS, Los Angeles County Physicians Aid Association, Los Angeles.

Posters, drawings, pictures, maps and pamphlets present the story of the Los Angeles County Physicians Aid Association created by the Los Angeles County Medical Association as an agency to care for elderly and/or sick physicians and their dependents.

Medical Education

DONALD G. ANDERSON, F. H. ARESTAD and E. H. LEVEROOS, Council on Medical Education and Hospitals, American Medical Association, Chicago.

This exhibit displays data on medical education, registration and approval of hospitals, training of interns and resident physicians, and technical hospital personnel and medical licensure. Data is included pertaining to lists of approved

medical schools, hospitals approved for internships and residencies, approved technical schools, medical school enrolments and the Survey of Medical Education.

Voluntary Health Insurance

GEORGE COOLEY and HOWARD BROWER, Council on Medical Service, American Medical Association, Chicago.

A map shows the percentage of eligible population enrolled in voluntary health insurance plans (hospital and medical) together with charts and graphs showing the growth in health insurance, types of plans available to the people and a number of interesting plan characteristics and developments.

Certain Aspects of Aviation and Space Medicine

CAPT. ALFRED A. GENTILCORE (USAF, MSC), Office of the Surgeon General, Washington, D. C.; BRIG. GEN. OTIS BENSON (USAF, MSC) School of Aviation Medicine, Randolph AFB, Texas, and COL. WALTER CARLSON, Aero-Medical Laboratory-Wright-Patterson AFB, Dayton, Ohio.

The exhibit presents certain physiologic and psychologic findings pertaining to the effects on man of speed and temperature.

Medical Motion Pictures

H. PRATHER SAUNDERS, American College of Surgeons, Chicago.

The exhibit will consist of charts, posters, photographs and a stereoscopic demonstration of the guiding principles in evaluating medical motion picture films and the evolution of the program of the American College of Surgeons in this field over the past fifteen years. A demonstration of the method of improving and standardizing medical motion pictures.

Hospital Aid to Medical Practice

MAURICE J. NORBY, American Hospital Association, Chicago.

The exhibit shows the services of the American Hospital Association available to the medical profession through member hospitals with which they are affiliated; these include a lending library from the most complete reference file of hospital literature in the world, as well as officially approved manuals of operating procedure, organizational patterns and administrative relationships. A stainless steel, fully equipped scale size model formula room will be demonstrated.

A Nationwide Program for the Handicapped

LAWRENCE J. LINCK, National Society for Crippled Children and Adults.

The exhibit shows services and facilities available to physicians in the care and treatment of handicapped persons.

MOTION PICTURES

Two motion picture theaters will be in operation continuously throughout the week. They will be located in Masonic Hall, adjacent to the Civic Center, where the films will be shown once daily, Monday morning to Friday noon, on a definite schedule.

Subdiaphragmatic Renal Exposure Via Eleventh Rib Resection

HENRY BODNER, Hollywood, Calif.

The film shows improved exposure for the extremely large kidney, utilizing a resection of the eleventh rib and still remaining subdiaphragmatic by stepping down incision to upper border of the twelfth rib. Excellent exposure also afforded for adrenal and spleen in this manner. Silent, 14 minutes.

Pelviolithotomy—Fibrinogen-Coagulum Technic

COL. J. C. KIMBROUGH (MC) and MAJOR ROBERT B. ROWE (MC) Walter Reed General Hospital, Washington, D.C.

The picture shows the removal of a calculus from the kidney pelvis by the fibrinogen-coagulum technic. The following procedures are emphasized: (1) preparation of the fibrinogen solution and the thrombin solution, (2) preparation of the renal pelvis for injecting the fibrinogen and thrombin, (3) simultaneous injection of the fibrinogen and thrombin into the renal pelvis and (4) withdrawal of the coagulum with the stone enmeshed. Silent, 13 minutes.

Tumor of the Testicle

JAMES C. SARGENT, Veterans Hospital, Wood, Wis., and Marquette University School of Medicine, Milwaukee.

The film presents several major clinical types of testicular tumors with comment on those most malignant and least radiosensitive for which radical regional gland dissection seems indicated. The operation of orchiectomy with radical gland dissection is shown with running comment on its major technical points. Sound, 14 minutes.

Fenestration Operation for Otosclerosis

GEORGE E. SHAMBAUGH JR. and PAUL HOLINGER, Northwestern University Medical School, Chicago.

This film describes the principle of the fenestration operation by means of animation. It takes up the indications and then depicts the operation on a patient, including the preoperative preparation, and the patient three weeks and three years after operation. Silent, 25 minutes.

A Bronchoscopic Clinic in Kodachrome

PAUL HOLINGER, KENNETH C. JOHNSTON and FRANK J. NOVAK, University of Illinois College of Medicine, Chicago.

In this film, 10 cases of bronchopulmonary pathology are shown. The history and physical and roentgen findings of each case are briefly given, followed by photographs of the pathologic changes seen through the bronchoscope. In cases in which a biopsy is taken, photomicrographs of the tissue specimen likewise are shown. The film includes pictures of the bronchoscopic operating room and the technic of the bronchoscopic procedure. The methods used in endoscopic photography are elucidated together with a sequence showing the camera equipment being used to photograph the tracheobronchial tree during a bronchoscopic examination. Silent, 30 minutes.

Arytenoidectomy—Open Approach for Bilateral Abductor Paralysis

DEGRAAF WOODMAN, College of Physicians and Surgeons, Columbia-Presbyterian Medical Center, New York.

This motion picture demonstrates a typical case in which paralysis of the vocal cords had resulted from a nerve injury during thyroid operation at an earlier date. The removal of one arytenoid cartilage and lateral fixation of the corresponding cord are shown. This procedure widens the glottic chink, thus providing an adequate airway for breathing and leading to improved phonation. Close-ups of the vocal cords and recordings of the voice, both preoperatively and postoperatively, indicate the results accomplished. A short section on voice training methods recommended for such patients is shown. Sound, 12 minutes.

Direct Laryngoscopy—Simplified Technic

SAM E. ROBERTS and FRANK S. FORMAN, University of Kansas Medical Center, Kansas City.

This picture demonstrates in full the anesthesia used, mechanical laryngeal head supports, self-retaining, dual distal lighted laryngoscope. Operation with the anesthesia is completely demonstrated on 6 patients. Silent, 16 minutes.

Esophagogastrostomy for Achalasia of the Esophagus

JOHN L. MADDEN, St. Clare's Hospital, New York and Long Island College of Medicine, Brooklyn.

This film depicts in detail the technic of lateral anastomosis between the esophagus and the fundus of the stomach, proximal to the obstruction at the cardia. Sound, 24 minutes.

Ruptured Intervertebral Disk

ROBERT DEAN WOOLSEY, St. Louis.

The film presents diagnosis, treatment and postoperative care in ruptured intervertebral disk. Silent, 29 minutes.

Injuries of the Peripheral Nerves

LOYAL DAVIS and GEORGE PERRET, Chicago, and Chamblee, Ga.

This film illustrates the pathology which arises when a peripheral nerve is severed and the physiology of regeneration after the nerve is repaired. There is depicted the anatomy of the peripheral nerves most frequently injured, and some well selected cases are used to illustrate the clinical results following nerve injuries. Sound, 30 minutes.

Hemicolectomy for Carcinoma of the Right Side of the Colon (One Stage Procedure)

PHILIP THOREK, University of Illinois College of Medicine, Chicago.

This film reveals the surgical treatment for adenocarcinoma of the ascending colon. The patient is a 56 year old man who presented a nonobstructing lesion of the right side of the large bowel. In the absence of distention, primary anastomosis was considered the procedure of choice. Following mobilization of the ascending colon in the proper avascular cleavage plane, the last 6 inches of ileum, cecum, ascending colon, hepatic flexure and the proximal half of the transverse colon are removed. An "aseptic" end to end ileotransverse colostomy was performed. Preoperative and postoperative roentgenograms and the patient one year postoperatively are shown. Colored illustrations amplify the film. Silent, 18 minutes.

Surgical Treatment for Patent Ductus Arteriosus

GEORGE H. HUMPHREYS, College of Physicians and Surgeons and Columbia-Presbyterian Center, New York.

A 3½ year old girl with a patent ductus arteriosus is examined, and the effects of the condition are demonstrated. The typical "coffee-mill" murmur is heard on the sound tract, and the roentgenogram shows characteristic changes in the outline of the heart. The surgical approach is made through the anterolateral chest wall at the level of the second interspace. The anatomy of the region around the ductus is demonstrated. In this procedure the ductus is ligated at each end, doubly clamped and divided. A second ligature placed under each clamp secures the stumps. Several months postoperatively the patient is shown to be much more active; no murmur is heard, and the cardiac silhouette on the roentgenogram is nearly normal. Sound, 11 minutes.

Side to Side Anastomosis of the Portal Vein to the Venacava

ARTHUR H. BLAKEMORE, Presbyterian Hospital, New York.

A right thoracoabdominal approach for the establishment of a portal vein to venacava anastomosis for portal hypertension is illustrated in color. Resection of the ninth rib and section of the anterior leaf of the diaphragm permits rotation of the inferior border of the liver upward and greatly increases the operative exposure of the hepatoduodenal ligament as well as the venacava. This enables the operator to approach the portal vein laterally and posteriorly without the necessity of mobilizing the common duct. The technic of a side to side anastomosis of the portal vein to the venacava is demonstrated. Silent, 12 minutes.

Breast Cancer—The Problem of Early Diagnosis

NATIONAL CANCER INSTITUTE, United States Public Health Service, Bethesda, Md., and AMERICAN CANCER SOCIETY, New York.

This is the second in a series of professional teaching films. It begins with animation showing the embryonal development of the breasts and histologic changes resulting from hormone activity. The proper technic in breast examination by the physician is stressed as is the importance of biopsy as the only certain means of distinguishing between benign and malignant tumors. Sound, 34 minutes.

Surgical Treatment of Hirschsprung's Disease

ROBERT B. HIATT, College of Physicians and Surgeons, Columbia-Presbyterian Medical Center, New York.

The film presents a brief explanation of the syndrome, by diagram and roentgenogram, followed by the operation. First, through an abdominal incision the peritoneum is opened, and the lower, achalasic portion of the sigmoid is mobilized. A clamp is then inserted into the rectum from below, closed around a knuckle of the intestine, and the rectum everted. After the abdomen is closed, the everted rectum and achalasic portion of sigmoid are excised, and the mucosa of the remaining sigmoid sutured to that of the anus. The sphincter mechanism remains intact, and bowel movements return to normal postoperatively. Sound, 15 minutes.

Femoral Hernia in the Female and in the Male

RAYMOND W. MCNEALY, Chicago.

The film shows the surgical repair of a femoral hernia in the female in detail, from identification and location of landmarks of the femoral artery to the interrupted retention sutures of wire at the completion of surgery. The surgical repair of a femoral hernia in the male is also presented, demonstrating similarity of femoral hernia in male and female. Silent, 18 minutes.

Control of Filariasis in Tahiti

JOHN F. KESSEL, University of Southern California, Los Angeles.

The film depicts activities of the research and control program on filariasis in Tahiti (a joint endeavor of the French Colonial Medical Service and the University of Southern California). Laboratory scenes, clinic scenes, photomicrographs of larvae and adult worms, of vectors and a description of methods of control are included. Silent, 22 minutes.

Schistosomiasis

DEPARTMENT OF THE ARMY, Office of the Surgeon General, Washington, D. C.

The film portrays the relationship of three types of schistosomiasis with particular reference to their geographic habitat, epidemiology, symptomatology and general control measures. Depicted in detail are the various technical, clinical and laboratory procedures necessary for the diagnosis and treatment of infection with Schistosoma japonicum. Sound, 27 minutes.

Arthropod-Borne Virus Encephalitides

DEPARTMENT OF THE ARMY, Office of the Surgeon General, Washington, D. C.

The film presents a disease problem which is approached by differential diagnostic measures. It portrays the diagnosis, treatment and control of Japanese B encephalitis in particular and illustrates the proper approach to the investigation of such a problem. Sound, 33 minutes.

Congenital Anomalies of the Heart and Great Vessels

T. J. DRY, J. E. EDWARDS, R. L. PARKER, H. B. BURCHELL and A. H. BULBULIAN, Mayo Clinic, Rochester, Minn.

The film is a pictorial presentation of important congenital anomalies of the heart and great vessels such as (*a*) tetralogy of Fallot, (*b*) Eisenmenger complex, (*c*) ventricular septal defect, (*d*) patent ductus arteriosus, (*e*) complete transposition of the great vessels, (*f*) persistent truncus arteriosus, (*g*) coarctation of aorta and (*h*) vascular rings. In each case, the significant anatomic deviations from the normal, are demonstrated by means of colored models, and the abnormal circulation resulting from such an anomaly is explained by means of schematic diagrams. The mechanisms which produce specific clinical signs and symptoms are correlated with pathologic findings, and the rationale and method of treatment, where applicable, are explained. Sound, 45 minutes.

Active or Spring Splinting of the Hand

STERLING BUNNELL, San Francisco.

This motion picture shows a system of active or spring splinting to bring about the position of function in the hand and to exercise the hand and forearm, thus preventing stiffening. The

splints were developed in the last war. Additional splints and combinations have been added. Silent, 18 minutes.

Surgical Approaches to the Scapulohumeral Joint

LEROY C. ABBOTT, Veterans Administration and University of California School of Medicine, San Francisco.

The film shows the anatomy of the scapulohumeral joint with animation. Surgical approaches for repair in recurrent dislocation, arthrodesis of shoulder and removal of calcified deposits are presented. Sound, 30 minutes.

The Operation of a Bone Bank

PHILIP D. WILSON, Hospital for Special Surgery, New York.

This film is designed to illustrate how a bone bank for refrigerated, homogenous bone is organized and employed. The usual sites from which bone is obtained for this purpose and the method of storing it in a deep freeze unit are shown. Typical orthopedic operations in which it is used are briefly illustrated. Roentgenograms and microscopic studies based on experimental data show how well such bone is assimilated into the body. The many advantages to orthopedic surgeons of using refrigerated, homogenous bone are summarized. Sound, 22 minutes.

Sling Procedure for Correction of Splay Foot, Hallux Valgus and Metatarsus Primus Varus Deformities

ROBERT J. JOPLIN, Massachusetts General Hospital, Boston.

The film shows the extensor tendon of the fifth toe transplanted around and beneath the neck of the fifth metatarsal in the same plane and parallel with the fibers of the transverse head of the adductor hallucis muscle and passed through the neck of the first metatarsal. The adductor hallucis tendon is detached from the proximal end of the first phalanx, separated from the flexor hallucis brevis tendon and passed through the same opening in the neck of the first metatarsal and attached to the capsule on the medial side by a silk suture. The complete operative procedure is depicted, and preoperative and postoperative radiographs are included. Silent, 15 minutes.

Proctoplasty in Radical Hemorrhoidectomy

A. GERSON CARMEL, Cincinnati.

This motion picture shows methods of avoiding undesirable sequelae such as stenosis and seepage that are prone to follow removal of large amounts of hemorrhoidal tissue in extensive cases. Plastic procedures are employed which include whole thickness sliding grafts, relaxing incisions, circumferential suturing in segments that have been radially removed and suturing of partially detached cut skin edges to the superior portion of the muscular anorectal ring and mucous membrane. Silent, 25 minutes.

Proctosigmoidoscopic Findings

DAVID MILLER, College of Medical Evangelists, Los Angeles.

This film shows the normal rectum, rectosigmoid and lower sigmoid both on insertion and withdrawal of the sigmoidoscope. The more common types of pathology seen on sigmoidoscopy are presented, such as melanosis coli, rectal and sigmoid polyps, rectal malignancy, rectal stricture from amebic ulceration, postradiation proctitis, chronic ulcerative colitis, nonspecific in its various stages, and several other cases of ulcerative colitis. Silent, 9 minutes.

Inflammatory Ulcerative Disease of the Rectum and Sigmoid Colon

JAY M. GARNER and J. PERRMAN NESSELROD, Northwestern University Medical School, Chicago and Evanston Hospital, Evanston, Ill.

The film consists of proctoscopic views in color, illustrating amebic ulcerative colitis, chronic ulcerative colitis, lymphogranuloma venereum with rectal stricture, chemical proctitis and tuberculous ulcerative proctitis. Silent, 25 minutes.

Tattooing with Mercury Sulfide for Intractable Anogenital Pruritus

ROBERT TURELL, Beth Israel Hospital, New York.

The film illustrates technic, indications and follow-up observations of this form of therapy based on a study of over 100 patients. Complete microscopic studies of tattooed skin are included. Silent, 16 minutes.

Thiuramdisulfide (Antabuse) in the Treatment of Alcoholism

A. E. BENNETT and L. G. MCKEEVER, A. E. Bennett Neuropsychiatric Research Foundation and Herrick Memorial Hospital, Berkeley, Calif.

Illustrative cases of chronic alcoholism before, during and after thiuramdisulfide treatment are shown. Preliminary hospital and laboratory studies are necessary in the selection of patients for treatment. Test reactions of the drug with alcohol and some methods to control the more severe reactions are shown. Follow-up psychotherapeutic procedures are essential for sustained results. Silent, 15 minutes.

Familial Periodic Paralysis

HAROLD N. PERELSON, University of Southern California School of Medicine, Los Angeles.

A motion picture study demonstrating the recovery in muscular power of a patient in an attack of familial periodic paralysis following massive doses of potassium citrate given orally and correlated with changes in the serum potassium level and the electrocardiogram. Silent, 12 minutes.

Chronic Barbiturate Intoxication

HARRIS ISBELL and VICTOR H. VOGEL, United States Public Health Service Hospital, Lexington, Ky.

Motion pictures taken of five human subjects over a period of five months show chronic barbiturate intoxication from daily administration of different barbiturates and severe withdrawal therefrom, including convulsions and temporary psychotic behavior. Silent, 16 minutes.

Familial Cerebellar Ataxia in Four Brothers

WINFRED OVERHOLSER, St. Elizabeths Hospital, Washington, D. C.

The film shows four brothers, the first three and the last born of eight siblings. In each gait difficulties developed at the approximate age of 7. Ataxia, weakness and speech difficulty were progressive. Each showed intellectual retardation (mental age approximately 8) and emotional immaturity. The family history did not show similar disease. These cases belong in the group of heredofamiliar spinocerebellar degenerations and are considered to be variants of Friedreich's disease. Silent, 11 minutes.

Rehabilitation of a Pianist

HENRY H. KESSLER, Kessler Institute for Rehabilitation, West Orange, N. J.

The film shows operation of cineplastic motors placed in the stumps of a bilateral arm amputee. The subject demonstrates the use of the prostheses attached to these muscles for such activities as writing and smoking and use of interchangeable hooks and dress hands. The subject, a pianist, then plays several selections with the cineplastic hooks. This film is a demonstration of the applications of cineplasty, a surgical technic whereby the healthy muscles in the amputee's stumps are utilized to activate a prosthetic arm and hand or arm and hooks independently. Sound, 17 minutes.

V 1
195

the Technical Exposition

A diversified program of valuable information, practical ideas, new methods . . . an opportunity to acquire first-hand acquaintance with developments in nearly every line of the medical industry . . . attractive displays of more than 300 firms showing hundreds of products, with "newness" the dominant note . . . demonstrations which ordinarily could not be seen outside a well equipped laboratory—that's what the Technical Exposition in the Civic Auditorium offers attending physicians at the San Francisco 99th Annual Session, June 26-30, 1950!

From the pharmaceutical industry alone, more than 75 manufacturers present important products. Leading publishers make it possible for you to personally examine almost any book of current interest. Producers of dietary products discuss them in the light of today's knowledge. Makers of improved, scientific instruments and equipment of all kinds . . . infant items . . . cosmetics and toiletries developed under formulas that recognize known factors of interest to physicians . . . give you a handy opportunity to see or test their specialties.

The arrangement and numbering of the booths make it easy to locate any of the exhibits spread throughout three floors of the Civic Auditorium: Main arena, Mezzanine (second floor), and Lower Level. Booths with numbers A to I are on the main floor; those lettered M or N, on the second floor; and those with LL on the lower level. In the main hall (front lobby) are General Registration, Alumni Registration, Transportation desks, and other services for your convenience.

Plan to visit the exhibits every day. They open at 8:30 Monday morning, June 26, and remain open until Friday noon, June 30. Daily hours are 8:30 a. m. to 6 p. m., except on Friday.

To get a general idea of what may be found in each booth, browse through the following pages which contain brief, descriptive items under each firm's name.

THOS. R. GARDINER
Business Manager and Director of Technical Exhibits.

ABBOTT LABORATORIES
Booths A-8, E-8, 10

The Abbott exhibit features Noripodrine Sulfate Powder with the Aerohaler—for oral inhalation therapy in asthmatic conditions. An action display shows how the powder is released, inhaled and carried to achieve a bronchodilating effect. Other products exhibited include: Desoxyn Hydrochloride, a cerebral stimulant; Nembutal, a short-acting barbiturate with 44 clinical uses; and Pentothal Sodium, an intravenous anesthetic. Samples and literature on other Abbott products are available.

AIR-SHIELDS, INC
Booth LL-29

The Isolette Chapple infant incubator is being demonstrated in booth LL-29. This unique isolation incubator remains closed at all times, providing for the premature infant the benefit of unchanging atmospheric conditions.

W. D. ALLISON CO.
Booth H-25

W. D. Allison Company has a representative display of their physicians' famous wood furniture as well as their new DuraSteel metal line. It will pay you to see what is now being offered in modern equipment. Allison can also help you with floor planning if you are contemplating building or remodeling.

ALMAY BEAUTY PREPARATIONS
Booth H-33 (E½)

Almay is exhibiting the latest developments in hypoallergenic cosmetics. These fashionably feminine cosmetics have been developed in the pharmaceutical laboratories of Schiefflin & Company. Almay Face Powder is prepared from inorganic ingredients and excludes the usual pigments made from aniline dyes. Lipsticks include: perfumed, unscented, without dye, and special formula. Lipstick raw materials testing kits are on display.

A. S. ALOE CO.
Booth C-32

THE AMERICAN ACADEMY OF GENERAL PRACTICE
Booth LL-31

The unprecedented growth and the organizational structure of the Academy are portrayed. Pages from the significant new medical journal, *GP*, are featured along with illustrative literature and examples of official Academy reports. Charts show membership growth. The literature demonstrates the program in continuation post-graduate study and training for general practice.

AMERICAN CYSTOSCOPE MAKERS, INC.
Booths E-17, 19

An interesting assortment of their new esophagoscopes, bronchoscopes, gastroscopes, and endoscopic photographic equipment form a part of the American Cystoscope Makers exhibit. A complete line of catheters, diagnostic and operating instruments, and electro-medical equipment are also displayed.

AMERICAN HOSPITAL SUPPLY CORP.
Booth H-5

Two products which deserve special attention are the Kramo-Ivy Flicker Photometer and the Staticator. The Flicker Photometer utilizes the Flicker Fusion Threshold to reveal the tendency toward heart disease. Announced only recently, the Flicker Photometer has already received wide acceptance from cardiologists and promises to materially enhance the effectiveness of physical examinations in diagnosing hypertensive and/or coronary heart disease. The Staticator is a warning device for revealing the presence of static in the operating room in time for its detection before building up dangerous explosive voltage.

AMERICAN OPTICAL CO.
Booths G-5, 7, 9, 11

AMERICAN PHYSICIANS ART ASS'N
Lower Level

This year's Art Exhibition promises to be the most diversified and artistic ever conducted by APAA. Over eight hundred creations—oil paintings, water colors, sculptures, photographs, etchings, jewelry, miniatures, fine needle work, ceramics, polished stones and mosaic, etc.—are adequately displayed. Decorations for this enlarged art booth covering 3500 square feet of hanging space with excellent lighting, bunting-covered walls, secretary tables, chairs and comfortable settees have all been arranged by the executive secretary, Francis H. Redewill. The physician-artists have become so proficient that this year a large number of trophies are to be awarded in 10 different types of media—the prizes to be presented to winners and televised all over the west during the APAA banquet, held on Tuesday night, June 27.

AMERICAN SEAL-KAP CORP.
Booth H-27

AMERICAN STERILIZER CO.
Booths F-22, G-23

Clinical demonstrations of the American 1073 Operating Table and DMC Light, American-MacEachern Obstetrical Table, Albee-Comper Orthopedic Table, and Overholt-Comper Thoracic Table are being given at the American Sterilizer booth with a live model. Also on exhibition is their All-Purpose Autoclave Model 8816. This small portable pressure sterilizer with semi-automatic operation is meeting with increasing enthusiasm as it becomes more widely used. It gives the small office and clinic complete pressure sterilizing facilities, including instruments, wrapped fabrics, and sterile water.

AMERICAN SURGICAL TRADE ASSN., INC.
Booth LL-23

The American Surgical Trade Association features typical office layouts for physicians, whether for the general practitioner or specialist. If you are planning a new office, visit this exhibit and learn how you may secure a free copy of their thirty-two page booklet devoted to office planning, prepared in cooperation with the United States Public Health Service.

AMES COMPANY, INC.
Booth F-31

Ames medical service representatives are showing for the first time their new Universal Model Clinitest Urine-sugar Analysis Set. This set does not replace the present No. 2106 Clinitest Set. It is small, compact in arrangement, and contains Clinitest tablets hermetically sealed in foil. Bumintest Reagent Tablets also are exhibited for the first time. This is Ames Company's new test for albumin.

AMPEREX ELECTRONIC CORP.
Booth LL-9

APPLETON-CENTURY-CROFTS, INC.
Booth A-1

Nicholson J. Eastman's just published revision of Williams' *Obstetrics* is the featured new title in the Appleton-Century-Crofts exhibit in booth A-1. Also on display are advance proofs of George C. Shattuck's *Diseases Of The Tropics* and Olof Larsell's *Anatomy Of The Nervous System*. All other current medical titles of this 125-year-old publishing house are available for examination, including the late 1949 edition of John A. Kolmer's *Clinical Diagnosis*; Warren H. Cole's October 1949 edition of *Operative Technic In Specialty Surgery* and the October 1949 edition of Kelly & Hite's *Microbiology*.

ARLINGTON CHEMICAL CO.
Booth D-17

Representatives at the Arlington booth will be happy to answer any questions in reference to Arlington products. Featured are Caminoids, their Council-accepted protein hydrolysate; their complete line of allergens; and their newly released salt substitute, Gustamate.

THE ARMOUR LABORATORIES
Booths D-13, 15

Information on recent developments in the field of endocrinology by The Armour Laboratories may be obtained from any of the representatives present at the Armour booth. This informative exhibit merits your thoughtful attention.

THE GORDON ARMSTRONG CO., INC.
Booth F-28

Interest in booth F-28 centers on the Armstrong X-4 Baby Incubator—accepted by the Council on Physical Medicine and Rehabilitation of the American Medical Association and approved by Underwriters' Laboratories as well as the Canadian Standards Association. Over 10,500 of these outstanding incubators are now in use.

ASSOCIATED MEDICAL CARE PLANS
Booth H-4, 5

Associated Medical Care Plans offer an educational and informative exhibit showing the contributions made by the physicians of the United States and Canada in developing and supporting the Blue Cross and Blue Shield Plans, together with a brief summary of the importance of these Plans in making a prepaid health available to the public on a prepayment basis.

AVERST, McKENNA & HARRISON, LTD.
Booths H-12, 14

The center of attraction here is Premarin (Estrogenic substances, water-soluble)—a highly effective and well-tolerated preparation of naturally-occurring, orally-active, conjugated estrogens (equine). The potency of Premarin is expressed in terms of its principal estrogen, sodium estrone sulfate. Premarin provides convenience of administration and flexibility of dosage. Four potencies of Premarin Tablets and the liquid form are presented.

THE BABEE-TENDA CORP.
Booth N-2

Three Babee-Tenda Safety Chairs, including the new Extenda model, are shown in booth N-2. With simple, self-locking push buttons, the legs of the new model can be raised to table level for feeding baby at the family table or lowered to the regular position for playtime. Another interesting model is the C. P. Babee-Tenda, designed especially for babies or young children with cerebral palsy, poliomyelitis or any orthopedic difficulty. It offers comfortable, scientific support with security from falls.

BABY FORMULAS
Booth LL-9

This up-to-the-minute display shows a scale model plant featuring the industrial preparation of infant formulas. With an average production of 6000 bottles daily, Baby Formulas make deliveries of complete feeding requirements to nine hospitals in the Bay area and hundreds of private homes in San Francisco. The subscribing hospitals deliver a total of over 12,000 babies a year. One out of every three babies born in San Francisco is fed by Baby Formulas while in the hospital.

BAKER LABORATORIES, INC.
Booth H-17

A visit here will acquaint you with the improved Baker's Modified Milk—a completely prepared formula for bottle-fed infants. Only Grade A cows' milk is used as the basis of this formula and at no increase in price. The high protein content, two carbohydrates, the replaced fat, added vitamins, mineral salts and iron coupled with simplicity of preparation and low cost assure satisfaction for doctor, nurse, mother and baby.

C. R. BARD, INC.
Booth G-25

Although, as heretofore, the exhibit of C. R. Bard, Inc. is predominantly urological, several new and interesting non-urological instruments are displayed. These include new tubes for tracheal anesthesia, for choledochostomy, for the control of bleeding from esophageal varices, and for the care of "colostomies."

BAUER & BLACK
Booths E-13, 15

The Bauer & Black exhibit features a complete new line of standard hospital dressings in convenient economical packages for the doctor's office; unique new bandages, made of Webril non-woven fabric, for orthopedic cast padding; Bondle ball-shaped sponges; Kerlix Rolls, of soft, crinkled gauze; Curity dressings and adhesive for every surgical need; and an interesting line of Curity sutures.

W. A. BAUM CO., INC.
Booth C-3

All four models of the Baumanometer, the Pilchmanometer, and the new Air-Lok Cuff are being demonstrated at booth C-3. Physicians can see at first hand the simple and effective principle behind the amazing new Air-Lok Cuff and have an opportunity to discuss their bloodpressure requirements with Baum representatives.

BAUSCH & LOMB OPTICAL CO.
Booth F-30

Latest Bausch & Lomb developments in modern ophthalmic diagnostic and refracting equipment are shown in booth F-30. Of particular note are the new Portable Slit Lamp and the Ortho-Polar Trial Frame. Also displayed are: the "L" camera, for photomicrography; the "E" research microscope with low position, fine adjustments; Fluorescence accessories for quick, positive T. B. diagnosis; and Phase contrast accessories for examining unstained specimens.

DON BAXTER, INC.
Booth C-30

Featured in the exhibit of Don Baxter, Inc. are Vacoliter parenteral solutions, including Hyprotigen, a protein hydrolysate solution. Also shown is an interesting new line of Baxter dependable plastic tubes and catheters, including a Levin-type stomach tube and a nasal oxygen catheter.

BECK-LEE CORP.
Booth N-33

Here you will see the most recent developments in electrocardiographs. Newly designed instruments with many exclusive features for convenience and safety are shown. Trained representatives in attendance will be pleased to answer any questions you might have about this remarkable equipment. You will find this complete display of all types of electrocardiographs both interesting and informative.

BECTON, DICKINSON & CO.
Booths G-14, G-17

BEECH-NUT PACKING COMPANY
Booth F-4

At the Beech-Nut Packing exhibit is an attractive presentation of their thirty-eight varieties of Strained and Junior foods —conveniently and consistently packed in glass jars. Nutritionists in attendance will be glad to answer any questions regarding these foods, which have been familiar to eastern physicians for well over a decade, but are relatively new on the west coast.

V 1
195

BELL & HOWELL CO.
Booth N-19a

THE BEST FOODS, INC.
Booth N-27

Enlightening facts about Nucoa, a wholesome, nutritious, vegetable margarine, which, contains 15,000 units of vitamin A to the pound are available at this exhibit. Also of direct significance are the famous Best Foods: Hellmann's Real Mayonnaise and other Best Foods' products. Miss Elsie Stark, Director of Consumer Education, welcomes questions about the products.

BIB ORANGE JUICE FOR BABIES
Booth F-21

With a mechanical miniature of the Bib plant, dispensing chilled orange juice, this exhibit presents the latest development in pediatric feeding. The wide variation of ascorbic acid in ordinary oranges and how scientific control may guarantee a potency of at least 40 mg. of natural vitamin C retained in each 100 cc. of the finished product is demonstrated.

BILHUBER-KNOLL CORP.
Booth F-15

A visit to the Bilhuber-Knoll booth will acquaint you with the developments on their fine medicinal chemicals such as Bromural, Dilaudid, Metrazol, Theocalcin, etc. These time-tested prescription chemicals are prescribed alone or in combinations to meet the needs of the individual patient. They fill an important place in the physician's armamentarium of dependable medication.

THE BIRTCHER CORP.
Booth M-15

On display at the Birtcher booth will be found the latest developments in electromedical-electrosurgical apparatus. You may examine the new "personally certified" Electrosurgical Unit, the Birtcher Crystal Bandmaster Short Wave Diathermy, together with a representative display of accessories which may be used in conjunction with this equipment.

THE BLAKISTON COMPANY
Booths B-5, 7

Contemporary subjects by well-known medical men are the feature of Blakiston's exhibit. Spotlighted is a giant revolving book of Harrison's *Principles of Internal Medicine*. The result of 3 years' work by over 50 medical authorities, it integrates the pre-clinical sciences with clinical medicine to combine knowledge of diseases with understanding. Sharing honors for your attention are Ivy's *Peptic Ulcer*, a long-awaited book by a foremost authority; *Blakiston's New Gould Medical Dictionary*, the first completely new medical dictionary in 38 years say the publishers; Mote's *Proceedings of the First Clinical ACTH Conference*, basic information on its clinical use; and the new A.M.A. *Handbook of Physical Medicine and Rehabilitation*. Blakiston representatives will be glad to discuss these new books and those now in preparation.

THE BOOK SHOP BINDERY
Booth N-26

In this exhibit the physician may see at a glance what can be accomplished in his own office or reception room by the use of distinctive publishers' authorized bindings for his medical journals. Several shelves of standard journals, trimly bound, with title, dates and the owner's name in gold on the cover, may be inspected for materials and workmanship. Most important, the physician will discover the immediate impression created upon observers by the time-saving, space-saving "well-tailored bookshelf."

THE BORDEN COMPANY
Booths E-9, 11, N-12 (N½)

For almost a century, Borden's and their nutritional specialists have been working hand-in-hand with the medical profession in the interests of public health and better nutrition. What they have learned in the past will inspire and guide them in the future. Your confidence imposes upon them a responsibility in continuing to meet the highest standards of modern nutritional science. Representatives at the booth welcome the opportunity to discuss Borden products with you.

THE GEORGE W. BORG CORP.
Booths N-9, 11

General practitioners, as well as other physicians, will be interested in seeing the new "Fifty-Ninety" diagnostic x-ray unit on display in booths N-9 and N-11. As the name implies, it has a capacity of 50 milliamperes at 90 peak kilovolts. This equipment includes a hand tilting table that permits both horizontal and vertical radiography and fluoroscopy. Outstanding features are electronic stabilization, electronic timing, automatic line compensation, and preset milliamperes.

JOHN H. BRECK, INC.
Booth F-44

In addition to their complete line of hair and scalp preparations, John H. Breck, Inc. feature Baby Breck preparations, including an ointment to aid in preventing diaper rash; Lavo for washing baby from top to toe; soap, singly and in gift sets; and Breck industrial hand preparations: Work Cream, Hand Cleaner, Water Resistant Cream, and pH7 Protective Cream.

GEORGE A. BREON & CO.
Booth G-3

Interest at the Breon exhibit centers on their Nisulfazole, designed particularly for the treatment of non-specific ulcerative colitis. Technically informed representatives are on hand and welcome your visit whether you wish to talk technicalities, economics, or politics!

BRUCE PUBLISHING COMPANY
Booth LL-3

Saw-Ge-Mah (Medicine Man), a fascinating novel by a well-known surgeon—Louis J. Gariepy, M.D., of Detroit, Michigan—is featured at the Northland Press-Bruce Publishing Company booth. Woven into the intriguing story of a young man's struggle to become a successful physician are discussions of medical schools, internships, general practice, specialization, group practice, etc. A book that every physician will want to read, *Saw-Ge-Mah* has well been called the story of every medical man.

THE BURDICK CORP.
Booths E-14, N-6

Included in the Burdick display of important physical medicine equipment are Council-accepted diathermy apparatus, ultraviolet and infra-red lamps, and the Rhythmic Constrictor. A feature of especial interest is their EK-1 Direct-Recording Electrocardiograph which is demonstrated with an "electronic heart."

BURNS CUBOID CO.
Booth A-17

The colorful masonite display has come to symbolize "foot comfort" to hundreds of doctors at annual and clinical sessions. The central theme again emphasizes foot balance as the important theme of real foot comfort. A large Cuboid balancer portrays prominently the shape and anatomical spacing of the "raises."

BURROUGHS WELLCOME & CO., INC.
Booth I-13

'B. W. & Co.' representatives have on hand some of the latest clinical findings on two of their outstanding products: Globin Insulin 'B. W. & Co.,' an accepted intermediate-acting insulin, ready to use, requiring no preliminary mixing; and Digoxin 'B. W. & Co.,' a "highly purified" crystalline glycoside obtained from the leaves of Digitalis Lanata.

BURTON MFG. COMPANY
Booth F-30

Their newly developed Super Power Light is on display at the Burton booth. This unit is said to provide hospital-type lighting for the doctor's office at a low price. Recent advertising and literature indicate that the unit is extremely popular. In addition, Burton also exhibit their line of ultraviolet black lights, recently accepted by the A.M.A. Council on Physical Medicine and Rehabilitation. Their usual lines of microscope illuminators, examining lights, illuminated magnifiers are also displayed.

CALGON, INC.
Booth LL-22

A great aid to soap in attaining healthful cleanliness is demonstrated by Calgon, Inc. in the redissolving of hard water deposits by Calgon. Calgon eliminates soap film, assures brighter, softer clothes, cleaner dishes, and scum-free personal bathing. In mechanical dishwashing, Calgonite, compounded of Calgon and alkali, solves the sanitation problem arising from film-retained soil.

CAMBRIDGE INSTRUMENT CO., INC.
Booth F-32

The new Cambridge Simpli-Scribe model direct-writing portable electrocardiograph is one of many important developments on view. Simpli-Trol portable and mobile models of the Cambridge Standard String Galvanometer Electrocardiographs and Electrocardiograph-Stethograph-Pulse Recorders are featured. The Cambridge Electrokymograph for recording heart border motion and the Cambridge Plethysmograph which furnishes standardized, quantitative, and reproducible r e c o r d s of variations in volume of human extremities are other important instruments on view.

CAMEL CIGARETTES
Booths N-29, 34

Camel Cigarettes feature color slides of background data from their newest research—weekly examinations of the throats of hundreds of men and women smoking Camel Cigarettes exclusively for thirty days.

CAMERON SURGICAL SPECIALTY CO.
Booth N-19

See the new binocular spectacle loupes; mirror type headlites; suction coagulation handle with numerous accessories for all phases of electro-surgery, electrocauterization, electro-coagulation, desiccation and fulguration; Cameron surgical units; electro-diagnostic lamp and instrument outfits; the new stainless steel Boros flexible esophagoscope and other peroral equipment; coagulair and dualite sigmoidoscopes; tele-vaginalite; illuminated specula, endoscopes and retractors; flexible gastroscopes and stomach camera.

S. H. CAMP & COMPANY
Booth E-16

Displayed here is a complete line of Camp anatomical supports for prenatal, postnatal, orthopedic, visceroptosis, sacroiliac, hernial and other specific conditions. Experts from the Camp staff will be glad to answer questions pertaining to the scientific application of these supports and to advise regarding the availability of them in Authorized Service departments of stores throughout the country.

CARNATION COMPANY
Booth C-21

At booth C-21 you will see an animated exhibit showing a series of colored translites highlighting the modern evaporating production methods used by the Carnation Milk Company. Clear and concise reasons for prescribing Carnation Evaporated Milk for infant feeding, child feeding, and general diet purposes are indicated. Interesting literature is available for distribution.

G. W. CARNRICK CO.
Booth N-39

A showing of the recently-introduced Dioloxol (brand of mephenesin) affords an opportunity to learn more about this new muscle relaxant for certain spastic and neurologic disorders. Other products displayed are Thelestrin in Sesame Oil and Thelestrin in Aqueous Suspension—injectable estrogen preparations available in an exceptionally wide range of potencies and package forms. Specimens and professional literature on all items are available at the booth.

WILMOT CASTLE CO.
Booths G-24, 26

Explosion-proof, portable, surgical spotlights of an advanced design are being shown by Wilmot Castle Company. Floating arm mounting, easy provision for bulb replacement, etc., are some of the advantages you will hear about.

THE CENTRAL PHARMACAL CO.
Booth H-31

Their new and improved Theophylline Compound—Theophylline-Sodium Glycinate (Synophylate)—is emphasized in Central's booth. Also displayed are Central's original triple-sulfa preparations in suspension, palatab and tablet forms; and their aqueous suspensions of natural estrogenic substances—Estronol. A friendly welcome is extended to all physicians.

CHICAGO PHARMACAL COMPANY
Booth C-31

One of the country's oldest pharmaceutical houses (originating as Halsey Brothers, 1855) but a new A.M.A. exhibitor at the San Francisco 1950 meeting, Chicago Pharmacal Company stress first their complete manufacturing facilities and show the manufacture of digitoxin from the green plant to the tablet in the Chimedic laboratories. Exhibited second are the many available, convenient dosage forms of estradiol, U. S. P. Calcium therapy (levulinate form) data also provides considerable interesting discussion material.

CHILCOTT LABORATORIES
Booth H-1

Chilcott Laboratories, Division of The Maltine Company, exhibit Cellothyl, dramatic new constipation corrective which has attracted such widespread clinical interest. This unusual preparation — methylcellulose in easy-to-take tablets —acts to provide bland, inert bulk selectively in the colon where bulk is needed to encourage peristaltic function and normal elimination. Extensive clinical data on the use and advantages of Cellothyl in stubborn constipation and related dysfunction is available.

CHILEAN IODINE EDUCATIONAL BUREAU
Booths H-23, 24

The Chilean Iodine Educational Bureau exhibit calls attention to the place of iodine in surgery, medicine, and nutrition. Samples of U.S.P., N.F., and Council-accepted preparations containing iodine are displayed. Representatives on hand offer the Bureau's services without cost or obligation.

CHURCH & DWIGHT CO., INC.
Booth E-7

The use of Arm & Hammer and Cow Brand Baking Soda as a dentifrice is emphasized in the Church & Dwight exhibit. Colorful little booklets suggesting its application in cleaning teeth are on display and handy pocket-sized samples especially suitable for traveling may be had at the booth.

CIBA PHARMACEUTICAL PRODUCTS, INC.
Booth D-2

Enlarged kodachromes showing various dermatoses—carefully selected from the pictorial files of the Department of Dermatology and Syphilology, Skin and Cancer Unit of the New York University Hospital —are utilized in the Ciba exhibit. Representatives will be glad to discuss the role of Pyribenzamine in the symptomatic treatment of allergic conditions.

CINCHONA PROD. INSTITUTE, INC.
Booth LL-13

This exhibit shows colored illustrations of the plasmodium of malaria based on drawings made at the Institute of Tropical Hygiene in Amsterdam. It also shows illustrations of cinchona plantations in Java, research laboratories, and an outline of the research grants made by the Cinchona Products Institute to various medical colleges. Publications on the use of cinchona alkaloids are available for distribution.

CLAY-ADAMS CO., INC.
Booth H-33

COCA-COLA COMPANY
Booth I-20

Ice-cold Coca-Cola is being served through the courtesy and cooperation of the Coca-Cola Bottling Company of California, San Francisco, and The Coca-Cola Company.

WARREN E. COLLINS, INC.
Booth A-26

At booth A-26 Warren E. Collins, Inc., exhibits the 1950 model of the Drinker-Collins Duplex Respirator. The new Collins Respirometer used in pulmonary disease is also shown. The Collins Metabolex (waterless); the Benedict-Roth (water-seal) which meets the most exacting metabolism requirements; the Collins Vitalometer (vital capacity), and the Collins Oxyflo (open top) oxygen tent will be of special interest.

COLSON EQUIP. & SUPPLY CO.
Booth LL-17

Included in this exhibit of hospital furniture and equipment are two new items of general interest: the Raymont Electric Runabout, which can be adapted to the infirmities of the invalid by modification of controls and seating arrangement; and a new Bedside Electric Compress Heater to handle compresses of any size up to an average bath towel.

COLWELL PUBLISHING CO.
Booth A-9

Complete medical records, attractively and logically designed—that's the keynote of the Colwell exhibit. You will see a wide variety of forms for medical histories in many sizes and styles. The Daily Log for Physicians provides the basis of a system of sound practice management and complete figures for your tax returns. Here is a chance to talk over the business side of your practice with experienced representatives.

C.S.C. PHARMACEUTICALS
Booth I-11

The C.S.C. display presents the phenomenon of antibiotic synergism. Graphic representation is made of results obtained both in the laboratory and experimentally in patients. To prove synergism between two antibiotics it is necessary to demonstrate that a mixture of the antibiotics, each present in sublethal concentration, is in itself lethal to the test organism. This has been accomplished not only with a variety of test organisms in vitro, but also with patients afflicted with subacute bacterial endocarditis due to streptococci highly resistant to penicillin alone.

COMPASS TRAVEL BUREAU, INC.
Booth LL-18

Compass Travel Bureau specializes in travel arrangements for physicians, and this year, as in previous years, has a series of escorted medical tours to Europe, some of them arranged to coincide with the following international medical congresses to be held in Europe this summer: Cancer, Ophthalmology, Radiology, Pediatrics, Cardiology and Psychiatry.

CONTINENTAL MEDICAL BUREAU
Booth H-28

CORECO RESEARCH CORP.
Booth LL-20

Exhibited here is the Coreco Automatic Color Camera designed to photograph all surface areas of the body, from 1 to 1 close-up pictures to half-body size, and all cavities such as mouth, throat, ear, nose, vagina, and rectum. The Camera carries its own specially developed, fully color-corrected bulb and a mechanism for complete control of its color temperature and exposure within the camera itself. There is an automatic view finder synchronized with the automatic camera mechanism to permit viewing until a fraction of a second before exposure. The Camera provides for automatic focusing.

COUNCIL ON WHITE MINERAL OIL
Booth H-10 (8½)

Recent investigations relative to the use of mineral oil are available at this exhibit. Investigations of the absorption of mineral oil and the effect of mineral oil on fat soluble vitamins in the diet have revealed interesting data which is presented. Samples of U.S.P. Mineral Oil are available, together with literature concerning mineral oil.

CUTTER LABORATORIES
Booths E-4, 6

Especially interesting to physicians is the section of Cutter's exhibit devoted to human blood fraction products. Fractionated from pooled human plasma by a process developed in cooperation with Dr. Edwin J. Cohn of Harvard Medical School, these products include Hypertussis for passive prevention and treatment of whooping cough; Immune Serum Globulin for measles therapy; Fibrin Foam, an absorbable surgical sponge, etc. The Saftiflask System for administration of parenteral therapy in the hospital is another feature of Cutter's exhibit. Latest developments in expendable administration equipment is shown, as well as the Cutter Safti-System designed for simplified blood and plasma banking. Cutter's pediatric display highlights a complete line of purified, low-dosage immunizing agents, including Dip-Pert-Tet, and Alhydrox.

DAVIES, ROSE & CO., LTD.
Booth C-9

Davies, Rose & Company take pleasure in again exhibiting at an A.M.A. meeting. Their preparations best known to the medical practitioners of California are featured: Pil. Digitalis, Quinidine Sulfate Tablets, and Stramonium Pills—already widely prescribed throughout the country.

DAVIS & GECK, INC.
Booth C-6

Davis & Geck, surgical suture manufacturers, feature the complete line of D&G Atraumatic needle items by means of an ingenious needle chart that permits surgeons and the purchaser of sutures to readily find the type of material for a particular needle. The actual needles are molded in a plastic block with complete specifications as to diameter of wire, are diameter and type of point. Also shown for the first time is a new type of needle for eye surgery incorporating a special type of grinding which is described as an inverted cutting edge. This needle is extremely sharp and will undoubtedly find many other applications in surgery.

F. A. DAVIS COMPANY
Booth C-1

New teaching and reference books are displayed for your examination in booth C-1. Your special attention is called to the fourth edition of Stroud's *Cardiovascular Diseases*, the second edition of Troncoso's *Internal Diseases of the Eye*, the second edition of McCrea's *Clinical Cystoscopy*, *The Cyclopedia of Medicine, Surgery and Specialties*. Other well-known units of interest include: *Clinical Radiology*—Pillmore; *Reconstructive and Reparative Surgery*—May; *Treatment in General Medicine*—Reimann; *Clinical Interpretations of Laboratory Findings*—Goodale; *Clinical Neurology*—Alpers; *Pain Syndromes*—Judovich and Bates; *Dermatology*—Greenbaum; *Proctology*—Smith; and many others.

DAVOL RUBBER COMPANY
Booth F-10

At the 1950 A.M.A. Convention, Davol Rubber Company introduces the new Dr. Sengstaken Tube and Balloon for the control of bleeding from esophageal varices, the latest in colostomy and ileostomy appliances, new developments in surgical tubing, and the most recent advancements in surgical and hospital rubber specialties.

MRS. DAY'S IDEAL BABY SHOE CO.
Booth H-6

Attending pediatricians especially will be interested in spending some time visiting booth H-6. Capable attendants will be glad to give any and all assistance possible to inquirers in regard to the care of baby feet and their correct fitting.

THE DENVER CHEM. MFG. CO., INC.
Booth M-13

Galatest for the instantaneous determination of urine sugar and Acetone Test (Denco) for the detection of acetone in urine are exhibited. Be sure to see a demonstration of these "spot tests" for sugar and acetone. Galatest and Acetone Test (Denco) offer advantages of accuracy, simplicity and economy in routine urinalysis.

DE PUY MFG. COMPANY
Booth C-24

Fracture Appliances and their application keynote the De Puy exhibit. Sherman bone plates, Smith-Petersen nails, Lorenzo Half-Thread hip screws, and other items for internal fixation of bones—all made of S.M.O. Stainless Steel—will also merit your attention. A complete line of modern splints and other equipment for the general practitioner are on display.

DEVEREUX SCHOOLS
Booth M-3

Devereux Schools provide the physician with facilities for the education and treatment of children having academic or emotional difficulties. Twelve Devereux Schools in Pennsylvania, as well as the Devereux Ranch School in California, offer a controlled environment and modern training shaped to the needs of each child. At Santa Barbara, the three hundred and fifty acre ranch school bordering on the Pacific Ocean has an enrollment of seventy children. In Pennsylvania, there are facilities for over four hundred students. Representatives at the booth will gladly answer questions or discuss how Devereux may serve you and your patients.

THE DEVILBISS COMPANY
Booth F-1

The convenience and simplification of atomization and nebulization therapy is emphasized by DeVilbiss. A new, pocket-type, fine spray atomizer—which offers special convenience—and their recently released overnight vaporizer are featured items. A hand pump, proving to be another valuable device for simplifying the home administration of aerosols, is shown for your consideration.

DICTAPHONE CORP.
Booth LL-16

At its A.M.A. exhibit, Dictaphone Corporation is demonstrating how busy doctors can save valuable hours every week with the Time-Master. Doctors are shown exactly how the Time-Master and its plastic record, the Memobelt, are used to dispatch correspondence, record case histories, reports, diagnoses, and important telephone conversations. Dictaphone also explains a new plan that enables doctors to obtain Time-Master equipment without capital expenditure.

THE DIETENE COMPANY
Booth F-16

Visit the Dietene exhibit and examine the free diet service for physicians. The diets are nutritionally well-balanced, easy to follow, and made to appear as if they were typed in your office. Meritene, an economical and palatable whole protein supplement, and Dietene, a Council-accepted reducing supplement are also on display.

DOMUS MEDICA
Booth H-1

A timely exhibit is presented by The International Society of Friends of Domus Medica. The aim of this non-profit organization is the cooperation toward the establishment of world peace by promoting friendship bonds among physicians. The society under the honorary presidency of Prof. E. Marquis, is open to physicians, their families, and friends. It is organizing corresponding offices and clubs for its members all over the world. Medical Days of Friendship are organized under its auspices. The General Secretary, Valentin Chavry, M.D., is editor of the *Chronicle of the Domus Medica* (printed in English-French, 12,000 copies). A medal of Domus Medica is offered to its fellows.

DUKE LABORATORIES, INC.
Booth F-17

The products on display at Duke Laboratories' exhibit include: Elastoplast, stretchable, adhesive-surfaced bandages and unit dressings; Elastopatch, elastic adhesive protective covering for patch tests; Gelocast, prepared Unna-paste bandage; Tecto, a protective emollient cream; Nivea Creme, Nivea Skin Oil and Basis Soap—the "Prescriber's Cosmetics"; and Aquaphor, an ointment base.

E. I. DU PONT DE NEMOURS & CO.
Booth H-6

DUREX PRODUCTS, INC.
Booth M-16

E & J MANUFACTURING CO.
Booth F-46

Resuscitation is the theme of the E & J Manufacturing Company exhibit. Both mask and intra-tracheal techniques of resuscitation are discussed in conjunction with ingenious clinical dolls which graphically illustrate the operation of mechanical resuscitators in adult, child or infant cases. All of the various models of the famous E & J Resuscitator are being demonstrated.

EASTMAN KODAK COMPANY
Booths C-13, 15

Latest developments in both black-and-white and color photography, as well as medical radiography, keynote the Eastman Kodak exhibit. Of particular interest is a demonstration of the new Kodak Flexichrome Process for the production of full color medical illustrations. The new Kodak Flurolite Camera Combination for all types of medical photography is also shown. Featured in the radiographic exhibit are new Kodak Contact X-Ray Screens. A complete line of Kodak films and products for radiography and medical photography are included in the exhibit.

EATON LABORATORIES, INC.
Booths D-6, I-7

Eaton features the latest Council-accepted addition to the Furacin Family: Furacin Anhydrous Ear Solution *N.N.R.*—for the treatment of bacterial otitis media et externa. Cases of chronic otitis of many years standing have responded well to this preparation. Other specialties include Tripazine *N.N.R.*—a soluble triple sulfonamide tablet; Paracin *N.N.R.*—a scabicide, pediculicide and ovicide usually effective in one application; Lorophyn Suppositories *N.N.R.*—an effective, simple method for control of conception.

EDIN COMPANY, INC.
Booths H-55, 57

The Edin Company features an improved ink-writing electrocardiograph. Other equipment includes their Cardiotachometers, Ink-writing Oscillographs, Biological Amplifiers, and other interesting developments. This company has pioneered many medical research instruments. Their engineers welcome your inquiries on special problems.

THOMAS A. EDISON, INC.
Booths H-43, 45

Edison present the Disc Edison Voicewriter—an outstanding medium for increasing the quality of medical records 100% in one-third of the time required for longhand entry. Edison's new Subscribers' Service, introduced for the first time at any public showing, offers all the acknowledged benefits of specialized, medical, instrument dictation.

J. EDWARDS & COMPANY
Booth F-36

Edwards Shoes for children present new styles and orthopedic developments. Of special interest to pediatricians are infants' shoes incorporating the new "Cradl-Heel"—designed to provide a better heel seat and encourage proper walking habits in beginners. Edwards, currently celebrating their fiftieth anniversary, extends appreciation to the many who have sent their best wishes.

EISELE & COMPANY
Booth LL-1

Introduced at the Eisele exhibit are their new Interchangeable Hypodermic Syringes in 2 cc, 5 cc, and 10 cc sizes. For complete information, meet the representatives at the booth who welcome your visit and offer a special 50% discount during the convention.

ELECTRO PHYSICAL LABS., INC.
Booth F-5

Cardiotron, a pioneer direct-writing electrocardiograph, is diplayed in conjunction with the Cardiscope, a cathode-ray E.C.G. designed for many interesting applications. Cardiotron features complete automatic compensation enabling instantaneous lead switching and producing an abrasion and solvent-proof truly permanent record.

J. H. EMERSON CO.
Booth C-34

ENDO PRODUCTS, INC.
Booth D-19

The Endo exhibit blends the old with the new. In an early American apothecary setting appear modern Council-accepted items of Endo research. Noteworthy additions to the list are: Hycodan, a new antitussive, effective in smaller doses than codeine; Mesopin, a gastrointestinal antispasmodic of established effectiveness; Norodin, a modern psychomotor stimulant and antidepressant; Hyflavin, soluble and active riboflavin; and House Dust Extract, a most highly purified concentrate of that ubiquitous allergen, which has become a standard for diagnosis and hyposensitization.

ERB & GRAY
Booth M-20

Erb and Gray exhibit their latest models of microscopes incorporating extraordinary recent developments. The display includes the Coleman Spectrophotometer, Models 6A and 14, designed specifically to meet the needs for modern spectrochemical analyses in clinical laboratories. Also on exhibit is the new Precision-Warburg apparatus and many other pieces of new laboratory apparatus of particular interest to the medical profession.

ETHICON SUTURE LABORATORIES
Booth F-13

New surgical items are being introduced in booth F-13. Among these important products are Bio-Sorb Dispensing Packets—a new packaging of Ethicon's absorbable dusting powder, ready to sterilize, containing sufficient powder to adequately lubricate the hands of surgeon or nurse; and Ethi-Pack, new, individually packed surgical silk, pre-cut into proper strands and ready for sterilization and immediate use—a handy, convenient method of receiving non-sterile surgical silk.

EUREKA X-RAY TUBE CORP.
Booth H-50

Eureka X-Ray Tube Corporation exhibit a complete line of x-ray and valve tubes, including rotating and stationary anode units for radiographic and fluoroscopic service; therapy tubes in all classes; and beryllium window tubes for high intensity soft ray application. Featured items are the new and advanced Roturex "50" rotating anode unit for fluoroscopic and spot film service; the Roturex "51" (first showing) designed for self-rectified equipment, and the improved T-RT-H therapy tube.

EVAPORATED MILK ASSN.
Booth H-26

Register at the Evaporated Milk Association booth for a free copy of *Infant Feeding with Evaporated Milk*—a manual for physicians on the use of evaporated milk in infant feeding—and for copies of *Making Baby's Formula*—an illustrated booklet for mothers on formula preparation using terminal heating. Other publications on the role of evaporated milk in child nutrition, maternal and social welfare, public health, and general nutrition are available without charge to professional people and for distribution to those whom they serve.

FABRIKATORS INC. OF MASS.
Booth N-41

Of special interest to visiting physicians and hospital administrators is the new Chestpirator hospital model portable respirator, on display in booth N-41. The acclaim of this product from all parts of the world make it an extremely important one for careful checking and consideration.

FANCEE FREE MFG. CO.
Booth I-24

It's a "must" to see, say Fancee Free, the garter belt for the mother-to-be! Your maternity patients will enjoy wearing the Fancee Free, not only during pregnancy but afterwards. The all-elastic belt fits around the waist in back, and below the abdomen in front, thus eliminating pressure.

H. G. FISCHER & CO.
Booths F-35, 37

Their Spacesaver Radiographic-Fluoroscopic Unit and Examining Table occupies a prominent place in the Fischer exhibit. This modern x-ray apparatus of high quality and low price is furnished in four models: 250, 100, 50 and 30 milliamperes. See what a small amount of office space the unit occupies and how easy it is to change from horizontal fluoroscopy to horizontal radiography without moving the patient from the table. Other modern x-ray and physical therapy equipment are also on display.

FISHER-STEVENS SERVICE, INC.
Booth C-20

This exhibitor maintains mailing lists of all practicing physicians in the United States, the Possessions and many countries of the world. The list is used for addressing a large share of the direct mail literature and samples received at doctors' offices. Stop by at the booth for counts and full details.

C. B. FLEET CO., INC.
Booth G-21

Phospho-Soda (Fleet), a solution containing in each 100 cc. sodium biphosphate 48 gm. and sodium phosphate 18 gm., is exhibited in booth G-21. The product's controlled action, freedom from undesirable side effect, and ease of administration are some of the advantages illustrated.

FLINT, EATON & COMPANY
Booth F-14

The introduction of Choline therapy in early and late cirrhosis of the liver is one of the most interesting of recent medical developments. An easy and palatable way of administering Choline to your patients is featured at Flint, Eaton & Company's booth. Unusual color photographs of liver pathology also tell an interesting story. At the exhibit, be sure to ask for your copy of an up-to-the-minute edition of a comprehensive digest on the present status of Choline therapy.

FOLEY MFG. COMPANY
Booth H-30

The Foley Food Mill, famous for quickly straining fresh cooked foods for baby and adult diets, is demonstrated on actual foods in booth H-30. Foley representatives will be pleased to show doctors and their wives just how practical the Foley Food Mill is for quickly pureeing vegetables and fruits, removing all fibers, hulls, and seeds.

FOREGGER COMPANY, INC.
Booth F-10

G. H. P. CIGAR CO., INC.
Booth I-22a

Two color films, carrying narration by Lowell Thomas, are shown by the manufacturers of El Producto Cigars. One of the films portrays the intricate equipment, skilled workmanship, carefully controlled blending and manufacturing methods which assure the uniform mildness of the finished product. The second film explains the packaging methods employed to protect the cigar until it reaches the smoker.

GENERAL ELECTRIC CO.
Booth G-16

Outstanding features of the exhibit in booth G-16, occupied by General Electric's Lamp Department, are the new De Luxe cool-white and De Luxe warm-white fluorescent lamps. Ideally suited for hospitals, clinics, consulting and waiting rooms, these new lamps provide the right light both physically and psychologically. At the booth you are invited to try out this illumination on your own complexion. Also on display, are GE's germicidal, health, and photo lamps. In attendance from the Lighting Research Laboratories at GE's Nela Park, Cleveland, is Mr. A. H. Taylor, research specialist on radiant and germicidal energy.

GENERAL ELECTRIC X-RAY CORP.
Booths G-13, 15, 17

A revolutionary "building block" design that permits x-ray equipment to grow is one feature of the General Electric X-Ray exhibit. The Maxicon line through varied assembly of its 17 components provides a complete range of diagnostic apparatus. Supermix developer and fixer are shown in new tin containers. Plastic inner-lining permits "canning" liquid chemicals for the first time. Also featured are: Cardioscribe, direct writing electrocardiograph; Inductotherm, high-output diathermy unit; stainless steel refrigerated developing tanks; and other selected x-ray supplies.

GENERAL FOODS CORP.
Booth C-37

Delicious Instant Sanka Coffee is being served at the General Foods exhibit booth. Professional members of their staff will welcome the opportunity to discuss the special qualities of D-Zerta with you.

GERBER PRODUCTS COMPANY
Booth F-20

Gerber's announce their newly Council-accepted baby foods—Strained and Junior Plums with Tapioca, and Strained Sweet Potatoes. These, plus the complete Gerber service of strained and junior fruits, vegetables, 100% meats, meat-soups, and distinctive cereals, are exhibited. The 1950 edition of *Baby's Book* is ready; also, a practical special diet recipes booklet that shows how soft diets may be made appetizing to convalescent adults. Professional representatives are at the booth to serve you.

GOMCO SURGICAL MFG. CORP.
Booth H-24

B. F. GOODRICH CO.
Booth LL-33

GRADWOHL LABORATORIES
Booth N-8

At the Gradwohl booth is an attractive presentation and interesting information on the various activities of this organization which include: publication of the *Laboratory Digest*; preparation and sale of laboratory reagents, including blood grouping sera; and training of laboratory personnel. Proper literature may be had upon registration.

THE GRAPETTE COMPANY, INC.
Booth N-27a

Visitors to exhibit N-27a on the second floor (near the elevator) are getting an "ice cold" reception—a bottle of Grapette, compliments of The Grapette Company of Camden, Ark. Souvenirs from Arkansas are also presented to visitors.

GRASS INSTRUMENT CO.
Booth N-49

In booth N-49, Grass Instrument Company proudly announces their Model III series Electroencephalograph, recently accepted by the Council on Physical Medicine and Rehabilitation of the American Medical Association for conformity to standards and approved by the Underwriters Laboratories for safety. Latest developments in accessory equipment and instruments for electrophysiological research and operating room use are also shown.

GRAY MFG. CO.
Booth F-26

GRUNE & STRATTON, INC.
Booth C-23

These new G & S books, just published or shown in the form of dummies and complete proofs, will be of particular interest: Soskin, *Progress In Clinical Endocrinology*; Sigler, *Cardiovascular Disease*; Bauer, *Differential Diagnosis Of Internal Diseases*; Storch, *Clinical Fluoroscopy*; Greenblatt, Arnot, and Solomon, *Studies In Lobotomy*; Miller, *Angina Pectoris And Myocardial Infarction*; Wolf, *The Urinary Function Of The Kidney*; Dameshek, *Chemotherapy Of Leukemia And Leukosarcoma*; Meigs and Sturgis, *Progress In Gynecology, Vol. II*; Malinlac, *Breast Deformities And Their Repair*; Linksz, *Physiology Of The Eye, Vol. I Optics*; Menninger and Devereux, *A Guide To Psychiatric Books*; and many others.

GUILDCRAFTERS
Booth LL-20

Visitors to the exhibit of Guildcrafters—designers and craftsmen of artistic metalwork—will see an attractive display of medical certificates in metal, special signs for doctors, push buttons with the caduceus insculptured or name engraved, Oath of Hippocrates, memorial and heraldic plaques, etc.

HAMILTON MFG. COMPANY
Booths C-33, 35

Hamilton Manufacturing Company shows a representative group of surgical equipment. Special features include three complete suites of examining room furniture: the Nu-Tone suite, conservative in design and finished in traditional walnut; Nu-Trend in modern styling and finish; and Steeltone in conventional design, finished in gleaming white. A newly designed pediatric table in walnut and a laboratory bench in new, cream white finish are also included in the Hamilton display.

HANOVIA CHEMICAL & MFG. CO.
Booth N-2

THE HARROWER LABORATORY, INC.
Booth G-2

Gastroscopic illustrations keynote the Harrower technical exhibit. The healing of a large gastric ulcer under medical management is traced by means of gastroscopic pictures. The coating action of Mucotin, a Council-accepted mucin antacid, on a gastric ulcer is demonstrated by means of gastroscopic illustrations. Gastric acidity control studies with various antacids are graphically presented. Special ulcer diet booklets, reprints and Mucotin samples are available at the exhibit.

H. J. HEINZ CO.
Booth G-19

The revised 13th edition of Heinz Nutritional Charts is available in booth G-19. It is called *Nutritional Data*, an authoritative reference book on foods and nutrition. Be sure to ask for it and have your name placed on their mailing list to receive the *Nutritional Observatory* four times a year. Various uses of Heinz Strained and Junior Foods—for infant feeding, gastro-intestinal disorders, geriatrics, etc.—are highlighted. A special dessert treat made with Heinz Strained Fruits may be sampled.

PAUL B. HOEBER, INC.
Booth A-5

Many distinguished Hoeber books of more than usual importance are being shown for the first time at the Hoeber-Harper booth. Hoeber books supplement but do not duplicate the books now on your shelves. Among the new volumes you will want to see are Jolliffe, Tisdall and Cannon's *Clinical Nutrition*; Babkin's *Secretory Mechanism Of The Digestive Glands* (2nd Edition); Gold's *Quinidine In Disorders Of The Heart*; DeJong's *The Neurologic Examination*; Reynolds' *Physiology Of The Uterus* (2nd Edition); and many others.

HOFFMANN-LA ROCHE, INC.
Booth C-11

The Roche exhibit is devoted exclusively to their Council-accepted specialty, Prostigmin. The many recognized uses of Prostigmin are always of interest to physicians. A staff of experienced representatives will be pleased to discuss Prostigmin and other Roche specialties of interest to physicians.

HOLLAND-RANTOS COMPANY, INC.
Booth C-22

Acceptability to patients and product effectiveness are basic considerations in the selection of products for conception control. The Holland-Rantos Company exhibit different Koromex Sets which you will want to see. These attractive, practicable unit packages, and the opportunity for comparison of both jelly and cream base to determine individual preference, should appeal to the most discriminating patient.

HOLLISTER-STIER LABS.
Booth C-43

The Hollister-Stier Laboratories are demonstrating the importance of clean, dry raw pollen in their preparation of pollen extracts in concentrated form. It is a valuable experience for the physician to observe objectively comparative studies of mass amounts of raw pollen. It is interesting and informative to compare the ratio of weight to volume of the various pollens and illustrates their airborne qualities. Botanists and technicians are present to assist physicians in their personal diagnostic or therapeutic problems pertaining to the practice of allergy.

HOSPITAL BEDNIGHT COMPANY
Booth LL-14

The Hospital Bednight Commode shown here affords commode service at bed level to the hospitalized patient. This convenient commode is destined to become standard hospital equipment for use by cardiac patients, obese invalids, etc. A support bar gives added safety and security. The commode vessel is a standard hospital bedpan. Both portable and cabinet models are shown.

RICHARD HUDNUT
Booths H-13, 15

The Richard Hudnut exhibit highlights three stellar groups: Richard Hudnut Hair Preparations; Dudbery Beauty Preparations; and Chen Yu. Demonstrators in costume grace the Hudnut exhibit, explain the different products to visitors, and give away a special gift package and special literature prepared for the convention.

HYLAND LABORATORIES
Booth LL-7

ILLE ELECTRIC CORP.
Booth M-10

Ille Electric Corporation demonstrate in exhibit M-10 how the care of infantile paralysis, arthritis, and other disabling conditions can be greatly improved by the use of hydrotherapy tanks. They will display an improved Mobile Whirlpool Bath.

IMPORTED SPECIALTIES, INC.
Booth LL-6

The Buhl Pocket-size Spirometer, which weighs less than one pound and fits into a doctor's kit, is shown in booth LL-6. The relatively comparable and reproducible readings of the aneroid model and the standard water type spirometer indicates that the new aneroid unit is a reliable instrument. The small size, ease of use, and portability are features of the aneroid spirometer, of particular value to the physician.

INTERNATIONAL COLLEGE OF SURGEONS
Booth B-3

The exhibit of the United States Chapter, International College of Surgeons, presents graphic detailed information concerning the activities of the College in all its phases, the principles upon which the organization is founded and functions, the location of its component chapters throughout the world, its general and educational program, and the extent of its activities.

THE INT'L MEDICAL RESEARCH CO.
Booth H-31

You will not want to miss the showing of the Bucky Combination Therapy Apparatus which produces three different types of radiation—x-ray up to 80 KV continuous use, contact and grenz ray therapy. Also exhibited is the Bucky Automatic Color Camera which enables the physician to take internal and external medical color photographs. The main feature of this camera is that the quality of the picture does not depend upon the photographic knowledge of the operator since the camera function is fully automatic.

IVES-CAMERON CO., INC.
Booth C-27

Several new as well as established products accepted by the A. M. A. Council on Pharmacy and Chemistry are featured at the Ives-Cameron exhibit. A. M. A. members and their friends will find the I. V. C. representatives well trained and able to discuss the latest accepted use of the many vitamins and pharmaceuticals marketed by the Ives-Cameron Company.

JOHNSON & JOHNSON
Booths D-9, 11

JONES METABOLISM EQUIP. CO.
Booth C-29

The exhibit features the new Jones Multi-Basal metabolism unit. This new unit is the result of careful research over a twelve-year period, beginning back in 1933, and is the manufacturer's answer to those of the metabolism-minded profession who have found themselves limited when using the standard type of equipment heretofore available. A staff of trained representatives are on hand to explain how this unit fits the size of the machine to the characteristics of the patient and to explain its several uses.

"JUNKET" BRAND FOODS
Booth H-17

Essential facts on the chemistry of the rennet enzyme and the nutritional significance and psychologic value of rennet desserts in the diets of infants and adults are explained. The enzymatic action of rennet in producing softer, finer, more readily-digestible milk curds is illustrated by enlarged photos. Literature giving the dietary applications of rennet products is available for your reference.

THE KELLEY-KOETT MFG. CO.
Booths C-48, 50

Keleket proudly presents in booths C-48 and C-50 another "first" in the development of x-ray—their original Add-A-Unit. Designed to "grow" with your requirements, the Add-A-Unit is well worth your inspection. Courteous Keleket representatives in attendance will gladly answer your questions.

KELLOGG COMPANY
Booth A-22

Physicians who are interested in diet therapy will want to see Kellogg's new special diet guide folder. In compact form are included bland, high residue, low calorie, high calorie, sodium restricted, low fat, low residue, high residue, high protein, and high iron diets as well as diets for young children and mothers to be. These diets have been carefully outlined following the recommendations of well-known authorities on diet in disease. A diet manual giving suggestions for additional restricted diets and various health education pamphlets are also available.

KEYSTONE VIEW COMPANY
Booth A-30

Orthoptic training techniques and procedures are being given increased attention in both the popular and professional presses. The Keystone View exhibit includes its complete line of visual training equipment with special emphasis on home training prescription units and techniques for the diagnosing and training of strabismics.

KIDDE MFG. COMPANY, INC.
Booth C-9

An entirely new, inexpensive model of the Kidde Tubal Insufflator is being introduced here. This new model incorporates the exclusive Gasometer pressure control and Flow Meter previously found only in the higher priced models. The new Model 700 Insufflator provides complete safety and simplicity for physicians having only occasional requirements for tubal insufflation apparatus. The standard model Kidde Tubal Insufflator with Strip Chart Kymograph is being demonstrated; and the Kidde Dry Ice Apparatus, with the improved small applicator shown.

LABORATORY EQUIPMENT CO.
Booth LL-12

Latest precision equipment for the medical profession manufactured by Reichert Optical Works of Vienna presented here, first showing in the United States in 15 years. Included are: microscopes, illuminators, phase microscopy accessories, ultraviolet fluorescence accessories for the microscope; Microtomes, including sliding, rotary and frozen section types and knives; photomicrographic equipment; and other items of interest for the medical and research laboratories.

LA FAYETTE PHARMACAL, INC.
Booth LL-24

Pantopaque (ethyl iodophenylundecylate), a new contrast medium developed especially for myelography, is particularly satisfactory for the study of the lumbar region. The entire myelographic examination may be completed in 20 minutes, including the injection and removal of Pantopaque. Because of its fluidity, Pantopaque may be used readily and repeatedly over a defect in the subarachnoid space. Clinical evidence indicates a high diagnostic accuracy.

LAKESIDE LABORATORIES, INC.
Booth G-1

The Lakeside booth presents research progress for the past two years in mercurial diuretics. The display involves more than fifty experimental compounds of various types, a program continuing at the present time and in the foreseeable future to synthesize more effective, safe, useable diuretics. The latest news in this research field is featured.

LANTEEN MEDICAL LABS., INC.
Booth C-7

Representatives demonstrate the new Lanteen technique, a dual method of contraception based on the use of Lanteen flat spring diaphragm and Lanteen spermacidal jelly. Two new ethical pharmaceuticals are being introduced: Alkagel, a pioneer antacid which provides prompt and prolonged neutralization of gastric acidity and relief from peptic ulcer; and Vodine, iodine in a specially formed base which makes possible rapid bactericidal action for skin, surface wounds, abrasions, etc. without burning, stinging or staining. Descriptive literature and samples are available.

LEA & FEBIGER
Booth D-12

The Lea & Febiger exhibit includes such outstanding new books and new editions as Burch, *Venous Pressure*; Cozen, *Office Orthopedics*; Kessler, *Principles and Practices of Rehabilitation*; McManus, *Medical Diseases of the Kidney*; Pullen, *Communicable Diseases*; Epstein, *Regional Dermatologic Diagnosis*; Holmes and Schulz, *Therapeutic Radiology*; Boothby and Epstein, *The Abnormal Pneumoencephalogram*; Gross, *Coronary Circulation*; Singer, *Differential Diagnosis of Chest Diseases*; Palmer, *Stomach Disease as Diagnosed by Gastroscopy*; Pohle, *Radiation Therapy*; Goldberger, *Unipolar Lead Electrocardiography*; Bridges, *Dietetics for the Clinician*; Wesson, *Urologic Roentgenology*; Kovacs, *Electrotherapy and Light Therapy*; Comroe, *Arthritis and Allied Conditions*; and many other standard books of practical guidance.

LEDERLE LABORATORIES DIV.
Booths H-8, 10

Lederle Laboratories, Division of American Cyanamid Company, feature Aureomycin. Literature on the newer findings for the use of this versatile antibiotic and a special annotated bibliography containing over 350 references are being distributed to physicians at the booth. This bibliography is the most comprehensive on Aureomycin extant, containing references from the introduction of Aureomycin in 1948 to the late spring of this year.

WALTER J. LEGGE CO.
Booth LL-4

THE LIEBEL-FLARSHEIM CO.
Booth A-11

The Liebel-Flarsheim Company, manufacturers of electromedical equipment for over thirty-five years, show their latest short-wave diathermy and Bovie electrosurgical apparatus for your examination and demonstration. Capable representatives are on hand at all times and hope you will stop by to become acquainted.

ELI LILLY AND COMPANY
Booths G-8, 10

An actual research procedure used in the study of established and promising analgesics is featured at the Lilly exhibit. You are cordially invited to visit this display and witness the determination of pain thresholds as registered by the rat tail method and also the use of the Hardy-Wolff, Goodell Apparatus. Especially trained technicians from the Lilly Research Laboratories are on hand to demonstrate this interesting experiment. Lilly medical service representatives from the San Francisco area welcome the opportunity to be of service in every way possible.

LINCOLN LABORATORIES, INC.
Booth I-21

Lincoln Laboratories, Inc. a pioneer in the development of hormone aqueous suspensions, features Aqueous Suspension of Progesterone together with a number of its leading, well-known parenteral medications. Literature and professional samples are available.

THE LINDE AIR PRODUCTS CO.
Booth H-14

The new R-501 clinical oxygen regulator, new L-27 oxygen therapy flowmeter, and new L-26 flowmeter adapter for industrial regulators, spotlight the Linde Air exhibit. Wall outlet valves and cylinder manifolds for oxygen piping systems are also shown, as well as small and large cylinders of Linde Oxygen U. S. P. Live displays include units from a typical Linde-designed hospital oxygen piping system.

J. B. LIPPINCOTT COMPANY
Booths B-14, 16

J. B. Lippincott Company presents an interesting and active exhibit of professional publishing. With the "pulse of practice" centering in an advisory editorial board of active clinicians who constantly review the field—current and coming trends in medicine and surgery are known continually. On the studied recommendations of these medical leaders, Lippincott Selected Professional Books are undertaken.

P. LORILLARD CO., INC.
Booth H-33

The exhibit by the makers of Old Gold Cigarettes is symbolic of the company's manufacturing policy which has been to retain all that is best in traditional methods and combine these with the best that Twentieth Century science affords. The booth is manufactured of the newest of plastics, plywood, and illuminated with indirect fluorescent light. The central feature is a lighted map showing the extent of Lorillard's manufacturing and sales facilities.

LUZIER'S, INC.
Booth I-5

A complete display of Luzier's Fine Cosmetics and Perfumes may be seen in booth I-5. This exhibit will be of special interest to dermatologists and allergists as well as to the ladies who attend the convention. Officials of Luzier's, Inc., are on hand to explain Luzier's Service in the field of allergy.

M & R DIETETIC LABS.
Booth F-2

Similac Division, M & R Dietetic Laboratories, feature Similac, a well-known food for infants; and Cerevim, a cereal food. Representatives at the booth will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding case.

MACHLETT LABORATORIES, INC.
Booth H-38

Machlett Laboratories are exhibiting a complete line of rotating anode x-ray tubes which cover the range of power required by all radiographic techniques, thus making this precision type of instrument available to all users of x-ray equipment. A new member of this line—shown for the first time—is the Dynamax "20," a small, lightweight rotating anode tube especially suited for low power x-ray machines.

THE MACMILLAN COMPANY
Booth G-18

Medical research assumes an increasingly important role in today's practice. David E. Green and W. Eugene Knox summarize the most recent advances in all fields of research related to medicine in the newly published *Research In Medical Science*. New advances in surgery also receive their deserved amount of attention in *The Cerebral Cortex Of Man* by Wilder Penfield and Theodore Rasmussen, as well as in the second edition of the well known Cutler-Zollinger *Atlas Of Surgical Operations*.

THE MAICO COMPANY, INC.
Booth H-11

MALLINCKRODT CHEMICAL WORKS
Booth I-10

Featured by Mallinckrodt for the first time is their new contrast medium, Urokon Sodium, accepted by the Council on Pharmacy and Chemistry. Urokon Sodium is recommended for visualization of the kidney, ureter and bladder and has proven a satisfactory and safe contrast medium for intravenous urography and retrograde pyelography. X-ray films showing the use of the Urokon Sodium are on display for your examination. Brochures, literature and reprints are available to the medical profession, and Mallinckrodt representatives will be glad to discuss this product with you. In addition to Urokon, the usual oft repeated prescription chemicals together with Council-accepted x-ray diagnostic media are shown.

MANHATTAN UNIFORM CO.
Booth LL-27

MARCELLE COSMETICS, INC.
Booth D-7

Featured at the Marcelle Hypo-Allergenic Cosmetic's exhibit is their Foundation Lotion for Oily Skin. This product has been awarded the seal of acceptance of the Committee on Cosmetics of the American Medical Association. It is being widely prescribed by those interested in dermatology both as an excellent cosmetic for the acne patient and as a flesh tinted vehicle into which medication can be incorporated. For the 17th consecutive year, the representatives of Marcelle Cosmetics will be on hand to welcome you.

THE S. E. MASSENGILL CO.
Booth H-21

Based on original work of the Massengill Research Laboratories, this exhibit shows graphically the effect of combining sulfonamides. The solubility of the three most commonly used sulfonamides—sulfadiazine, sulfamerazine and sulfamethazine—is compared with the solubility of these drugs in various combinations—all solubilities computed in normal urine at body temperature. The effect on solubility of the addition of alkalizing salts, such as sodium citrate, is also demonstrated.

F. MATTERN MFG. CO.
Booths F-27, 29

Some of the most advanced improvements in modern x-ray equipment are shown by F. Mattern Mfg. Co.—including their Push Button Control and Photo Electronic Timing of X-Ray Exposures. Courteous and experienced personnel are on hand to answer your questions.

McFEDRIES X-RAY SALES CO.
Booth H-53

Many new items are featured by McFedries, including their latest, highly practical and efficient combination radiographic, fluoroscopic x-ray unit. This completely counterbalanced screen and tube assembly, when used with either a 50 MA or 100 MA x-ray generator leaves little to be desired. The McFedries Hand Tilt Table likewise presents a modern, practical table, convenient to use with any combination of x-ray assemblies. An opportunity to serve you is welcomed by the firm.

McGRAW-HILL BOOK CO., INC.
Booth B-6 ($E\frac{1}{2}$)

Several distinguished new titles are featured here. Especially important are Hicks and Warren's *Introduction To Neuropathology;* Cohn's *Clinical Electroencephalography;* Bridge's *Epilepsy And Convulsive Disorders In Children;* Puffer's *Practical Statistics In Health And Medical Work;* Thoms' *Training For Childbirth;* and Lemkau's *Mental Hygiene In Public Health.* Two hundred other McGraw-Hill books in medicine and allied fields are shown.

McKESSON APPLIANCE CO.
Booth B-4

DUNCAN G. McLINTOCK CO., INC.
Booth H-27

The focal point of attention in the McLintock display is their Polyestol pain-relieving bandage, a highly elastic, transparent plastic bandage which gives off 45 to 50 Gm. of methyl salicylate for transcutaneous absorption at a constant rate when in use. The bandage may be applied for a total of sixty hours (never more than ten hours at a time). It can be stored between applications without danger of deterioration.

McNEIL LABORATORIES, INC.
Booth F-12

Butisol Sodium, Syndrox Hydrochloride, Liquoid Mer-Diazine and Liquoid and Tablets Metha-Merdiazine are among the new Council-accepted pharmaceutical preparations exhibited by McNeil Laboratories. A warm welcome is extended to their many professional friends not only from the United States but from foreign countries to stop by and renew old friendships.

MEAD JOHNSON & COMPANY
Booths A-18, C-12, 14

New, modern exhibits have been prepared by Mead Johnson & Company for this meeting. In their main display, booths C-12 and 14, are featured Dextri-Maltose, Oleum Percomorphum, Pablum, Pabena, Olac, Casec, Nutramigen, and other Mead nutritional products. In their protein exhibit, booth A-18, you may enjoy a tasty drink of Amigen along with Lonalac and Protenum. Members of the Mead Johnson staff welcome your visit to their new exhibits.

THE MEDICAL BUREAU
Booth A-3

In booth A-3, Burneice Larson offers the facilities of The Medical Bureau, an organization serving as counselor in problems of medical personnel to medical schools and universities, public health organizations, hospitals and institutions, group clinics, physicians in private practice and industry. The records of diplomates of the American Boards qualified to head their departments, younger physicians interested in obtaining training and, also, administrators, executive and supervising nurses, scientists, laboratory technicians, x-ray technicians, social workers and dietitians are available to those interested in the completion or reorganization of their staffs.

MEDICAL FILM GUILD
Booth I-1a

Medical Films That Teach presents a refresher course in fundamental medical problems. Each film subject is produced in the manner of a textbook, profusely illustrated, offering information comparable to that found in postgraduate courses as presented at our leading medical schools. These films review such subjects as *Arterial Blood Pressure Theory-Physiology Measurement; Allergy-Immunology Diagnosis and Treatment; Management of the Failing Heart; Occupational Health Problems; Hypothyroidism; Cervicitis; A Clinic on Deafness*, and many others. These films are available at no charge to intern groups, hospital staff conferences, limited nurses' groups, and to general medical meetings; and includes projection service at no charge, arranged through grants for postgraduate instruction.

MEDICAL MAILING SERVICE, INC.
Booth M-6

Physicians desiring to mail reprints to their colleagues may secure complete, detailed information including counts and prices for addressing and mailing to any select group of physicians in the United States and Canada. Many physicians and pharmaceutical manufacturers use this service. Medical Mailing Service has more than twenty years' experience in handling this work. Exhibitors are also invited to call and discuss their direct mail campaigns.

THE MEDICAL PROTECTIVE CO.
Booth I-17

The Medical Protective representative in booth I-17 will be glad to explain how his company meets the exacting requirements of adequate liability protection, which are peculiar to the professional liability field. Thoroughly trained in professional liability underwriting, he is entirely familiar with the principles of the reciprocal rights and duties of a doctor and patient and with the circumstances peculiar to that relationship.

MEDICAL SPECIALTIES, INC.
Booth LL-20

THE MENNEN COMPANY
Booth A-13

The Mennen Company exhibit famous Mennen Non-Medicated Baby Oil with Lanolin, new, soft Mennen Baby Powder, Mennen Castile Baby Soap, and Mennen Baby Cream.

MERCK & CO., INC.
Booths F-9, 11

The new, Golden Anniversary eighth edition of *The Merck Manual* will be on display for physicians' personal inspection at the Merck exhibit. Other features of current interest to the physician include informative presentations on Crystalline Vitamin B_{12}; the anti-tubercular agents Dihydrostreptomycin Sulfate, Streptomycin Calcium Chloride Complex, and Para-Aminosalicylic Acid; as well as Neo-Antergan, an antihistaminic agent characterized by clinically established potency and low toxicity.

THE WM. S. MERRELL CO.
Booth E-2

Merrell features Diothane Ointment, an improved topical anesthetic of prolonged effectiveness and established clinical safety—together with its companion product, Diothane Cream, designed for use where a vanishing cream base is preferable. Decapryn, a low-milligram-dosage antihistaminic, also is displayed.

MICROTONE COMPANY
Booth M-1

E. S. MILLER LABS., INC.
Booth M-25

An exhibit featuring their Council-accepted products has been arranged by E. S. Miller Laboratories, manufacturers of ethical pharmaceuticals since 1923. Practicing physicians will want to become better acquainted with these noteworthy preparations.

MILLS OF MARIN
Booth LL-5

Of special interest to pediatricians will be the unveiling of a new type of baby carrier, the MoMper, by Mills of Marin, Mill Valley, California. Unlike other carriers with over-the-shoulder suspension, the MoMper is a front-carrying garment which distributes the baby's weight primarily across the wearer's back. Without exception, mothers who have had the privilege of testing the MoMper are enthusiastic.

MINE SAFETY APPLIANCES CO.
Booth M-7

Mine Safety Appliances Company exhibits the MSA Pneophore and the MSA Oxygen Therapy Unit. The former instrument utilizes intermittent positive pressure for insufflation in cases of embarrassed respiration. It has been successfully used as an emergency respirator in poliomyelitis and to combat pulmonary edema in irritant gas inhalation. The Oxygen Therapy Unit delivers oxygen at the rate needed by the patient and is especially recommended for the emergency ward, recovery room, or patient's bedside when oxygen therapy is indicated.

J. J. MONAGHAN CO., INC.
Booth M-21

A recent news story concerning accomplishments of the Monaghan Portable Respirator is being told by the manufacturer. In March, 1950, the J. J. Monaghan Company shipped a respirator, at the request of the E.C.A., to Paris, France by air express to enable a young French girl to be flown back to France from England where she had contracted poliomyelitis. During the flight, the respirator operated on its own self-contained battery, a unique feature of the Monaghan Respirator.

C. V. MOSBY COMPANY
Booths A-2, 4

At the C. V. Mosby booth you will find many new and interesting titles. Some of the more important full volumes on display are Dodson, *Urological Surgery;* Douglas-Faulkner, *Obstetrical and Gynecological Pathology;* Titus, *Atlas of Obstetric Technic;* Meakins, *Practice of Medicine;* Slocum, *Amputations;* Cleckley, *The Mask of Sanity;* Regan, *Doctor, Patient and the Law;* Ischlondsky, *Brain and Behavior;* Kantor-Kasich, *Handbook of Digestive Diseases;* plus many others.

V. MUELLER & CO.
Booth I-9

In the V. Mueller & Company exhibit you will see many of the instruments recently developed for the newer surgical procedures. These highlight a large and comprehensive display of fine instruments, special and standard, for every field of surgical practice.

NAT'L ASSN. OF MARGARINE MFGRS.
Booth LL-25

For a free copy of *The Role of Fats in Nutrition*, prepared to provide a convenient, up-to-date source of the more significant information available about fats and published by the Research Committee of the National Association of Margarine Manufacturers, stop at booth LL-25. Taste samples of margarine are offered. If you have questions about margarine, please stop by. They will be answered immediately or by letter shortly after the convention adjourns.

THE NATIONAL DRUG CO.
Booth H-3

Resinat, a newly accepted therapy for peptic ulcer; Protinal Powder, a whole protein-carbohydrate mixture; and Diphtheria, Tetanus and Pertussis Vaccine Combined, triple immunization are the featured products at the National Drug exhibit. Also on display is National's vast array of Council-accepted biological and pharmaceutical products. Representatives in attendance welcome a discussion with physicians on the merits of the products on display.

NATIONAL EDUCATION CAMPAIGN, A. M. A.
Booth A-20

Literature outlining the advantages of Voluntary Health Insurance over the government's Compulsory plan, and pointing out the dangers of socialized medicine, is being distributed at the booth of the National Education Campaign of the American Medical Association by representatives of the campaign directors. Order blanks are available; and the literature, which is designed for distribution to the general public, will be sent without cost to any address.

NATIONAL ELEC. INSTRUMENT CO., INC.
Booth C-30

Visitors to National Electric Instrument booth will see interesting proof of lively, competitive functioning under our free enterprise system. Spread out for examination are some instruments that are well known to the profession. These show signs of the manufacturer's steady pressure upon improvement. Other products on display are new and notably interesting. They disclose how much consistent enterprise the manufacturer can employ in his development program. This exhibit will appeal to the specialist and the general practitioner alike.

NATIONAL LIVE STOCK & MEAT BOARD
Booth H-32

THOMAS NELSON & SONS
Booth B-6 (W½)

Thomas Nelson & Sons announce that for the 99th Annual Session of the A. M. A. they plan to lay particular stress on four important books—two of them brand new, and two published within the last nine months: *Gynecology* (the teachings of John I. Brewer), a new gynecologic textbook published in April, 1950; *Clinical Therapeutic Radiology*, edited by Dr. U. V. Portmann with 53 contributors; *Monographs On Surgery, 1950*, a new surgery annual edited by Dr. B. Noland Carter with three associate editors and seventeen contributors; *Atomic Medicine*, edited by Captain C. F. Behrens of the United States Navy. In addition all of their bound books published in the past two years and a few of their loose-leaf classics may be seen.

THE NESTLE CO., INC.
Booth D-3

For your relaxation, The Nestlé Company cordially invites you to enjoy a delicious hot cup of Nescafe. And, for your information, specially qualified representatives will be glad to answer your questions on any Nestlé's milk products—already well known and used for babies 'round the world. New pieces of professional literature are available.

THE NEW YORK MEDICAL EXCHANGE
Booth C-38

Patricia Edgerly in booth number C-38 welcomes a discussion with you of opportunities available with group clinics in various specialties; assistantships; associations; medical directorships in industrial and pharmaceutical fields; hospital appointments in the fields of pathology, radiology, anesthesiology, etc. She has a list of interesting openings as well as the credentials of some fine medical people. Stop by and chat with her.

NORTH AMERICAN PHILIPS CO., INC.
Booth N-10

OHIO CHEMICAL & SURGICAL EQUIP. CO.
Booth C-41

The Ohio-Scanlan A-7000 Major Operating Table Selectrol is the item of interest here. Convenient "true" head-end control of this new major operating table is concentrated in Ohio's Selectrol Positioner.

ORGANON, INC.
Booth M-6

Heparin, the body's natural anticoagulant, is the subject about which the Organon exhibit is centered. Subcutaneous injection and other new methods of administering Liquaemin, the Organon brand of heparin are described. Newer concepts of the mechanism of blood coagulation, showing sites of heparin action, are illustrated together with a machine actually demonstrating the anticoagulant action of heparin on the blood. Doca Acetate (desoxycorticosterone acetate), Oranixon (myanesin), and Muracil (methyl thiouracil), other Council-accepted Organon products, are also featured.

ORTHO PHARMACEUTICAL CORP.
Booth H-11

Featured here is the new Ortho Kit, a specially designed woven plastic, zipper bag containing the essentials for conception control. Ortho representatives are on hand to greet you and discuss any questions on Ortho-Gynol, Ortho Creme, or other Ortho control of conception products.

ORTHOPEDIC FRAME COMPANY
Booth LL-21

The Orthopedic Frame Company is demonstrating the useful Stryker Turning Frame—how it simplifies the nursing care of the paraplegic, and how it can be used in the home as well as in the hospital. Also shown are three new oscillating saws: the Stryker Cast Cutter, Stryker Autopsy Saw, and the Stryker Bone Saw.

OXFORD UNIVERSITY PRESS, INC.
Booth A-8

The Oxford University Press displays a complete library of all its medical publications, both American and import. New editions and titles include: Fulton, *Physiology Nervous System;* Boyce, *Acute Appendicitis;* Florey, *Antibiotics;* Thannhouser, *Lipidoses;* Rosenbaum, *Clinical Electrocardiography;* Thurber, *Evaluation Industrial Disability;* Christian, *Non-Valvular Heart Disease;* Keefer & Anderson, *Penicillin and Streptomycin;* Samuels, *Management Peripheral Arterial Disease;* Movitt, *Digitalis;* Barach, *Diabetes;* Kayne, *Pulmonary Tuberculosis;* Hill, *Operative Surgery;* Fulton, *Frontal Lobotomy;* Miles & Learmonth, *Operative Surgery;* Gunn, *Introduction to Pharmacology;* Browning & Mackie, *Textbook Bacteriology.*

G. H. PACKWOOD MFG. CO.
Booth C-16

Pax-Lano-Sav Heavy Duty Granulated Skin Cleanser, accepted by the Committee on Cosmetics of the A. M. A., is highlighted in this exhibit. Special laboratory equipment, perfected after more than three years of development work by Packwood technicians, now continually tests the cleansing effectiveness of Pax Heavy Duty as compared to other similar type cleansers. The Pax Electronic Soil Detector measures with unusual precision, and without the variability of human sight measurement, the amount of soil remaining on the skin after washing. The Pax Suds-O-Meter accurately compares the sudsing ability of any powdered or granulated skin cleanser. Both machines assure maintenance of the high quality and efficiency of this fine product now so widely used by the largest plants in America.

PARAVOX, INC.
Booth N-17

Paravox, Inc., Manufacturer of Paravox Hearing Aids and a regular exhibitor at A. M. A. meetings, is again with us at the 99th Annual Session. A beautiful plastic display illuminated by neon tubes shows the various component parts of the Paravox Hearing Aids in the proper sequence of manufacture and explains how each part finally finds its place in the completed unit.

PARKE, DAVIS & COMPANY
Booth G-8, 10

A few minutes of your time visiting the P-D exhibit will be well spent. Featured is their new antibiotic—Chloromycetin. This antibiotic has been identified chemically and is the first to be synthesized and produced on a practical basis in pure crystalline form. The exhibit illustrates its chemical properties, pharmacology, and toxicology; the laboratory spectra for susceptible bacteria, rickettsia, and viruses; as well as graphs and tables relating to its therapeutic application. Chloromycetin represents an outstanding achievement in medical science by the Parke-Davis Research Laboratories. Members of the Parke, Davis medical service staff are available for consultation and discussion relating to this new and other well-known medical specialties comprising their list.

PARSONS OPTICAL LABS., INC.
Booth N-61

Instruments and accessories of particular interest to the ophthalmologist—both diagnostic and surgical—highlight the Parsons exhibit. Contact lenses of all types and purposes; plastic prostheses; and visual aids of all kinds, particularly sub-normal vision devices, are also shown.

PELTON & CRANE
Booth H-4

PEPSI-COLA COMPANY
Booths I-4, 6

PEPSODENT DIV. LEVER BROTHERS CO.
Booths N-36, 38

Rayve, the new personalized home permanent with exclusive Dial-A-Wave Chart, will certainly interest you—and your wife. The individual "Rayve Number" is a personal guide to the correct timing procedure that's best for each individual type of hair and the amount of wave desired. Scientifically controlled in every step of manufacture by the famous Pepsodent Laboratories, Rayve's improved cream cold waving formula is fast, gentle, and so simple. Extensive patch tests have demonstrated Rayve's high quality and its gentle non-sensitizing composition. Trained Laboratory personnel are in attendance, eager to give you full details about Rayve Home Permanent—accepted by the Committee on Cosmetics of the American Medical Association.

MURLE PERRY
Booth M-12

For complete information on Perry colostomy and ileostomy products visit booth M-12. Presented is a new model, featuring advantages never before offered. It is equally useful as a colostomy appliance, colostomy protector, colostomy irrigator, or ileostomy bag. Courteous attendants will be happy to give you full information about this new model, as well as their complete ileostomy appliances.

PET MILK COMPANY
Booth E-21

A miniature working model of an evaporated milk plant is exhibited by Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Pet Milk, its use in infant feeding, and the time-saving Pet Milk services available to physicians. Miniature Pet Milk cans are being given to physicians who visit the Pet Milk booth.

PETRA MFG. COMPANY
Booth M-20

In addition to their regular line of attractive, protective garments for doctor, nurse, patient, etc., Petra Mfg. Company—manufacturers of Krestex garments—are featuring their new bootees, especially useful to protect trousers and shoes in orthopedic or urogical work. These bootees made of heavy plastic are designed to give long, hard wear and to fit over any shoe. A tie on top keeps them securely in place.

CHAS. PFIZER & CO., INC.
Booth I-2

Graphically presented at booth I-2 are the complex research and development work necessary in the development of a new antibiotic. Chas. Pfizer & Co., Inc., shows in a condensed version the many steps from early screening of soil samples from all parts of the world to the production of a great new antibiotic, Terramycin. Also included, besides Terramycin, are the many dosage forms of penicillin and streptomycin produced by Pfizer—world's largest source of antibiotics.

PHILIP MORRIS & COMPANY
Booths N-2, I-1

Philip Morris and Company present the results of their research on the irritant effects of cigarette smoke. An interesting demonstration is being made on smokers at the exhibit to show the difference in cigarettes.

PICKER X-RAY CORP.
Booth D-1, E-1

Picker X-Ray Corporation display their new Constellation motor driven 45° Treadelenberg x-ray table. It is shown equipped with an 8" x 10" motor driven serial filmer and features new magnetic locks. The new Pictronic 500 vertical control panel incorporates both electronic and phototiming. This control features safety circuits including heat storage safety cutoff. The Meteor is a new low-priced combination unit providing for fluoroscopy and radiography in both vertical and horizontal positions.

PITMAN-MOORE COMPANY
Booth C-5

Important among the Pitman-Moore products featured are a combination Poison Ivy-Poison Oak extract known as Ivoko; pleasantly flavored fluid sulfonamides—Magmoid Sulfadiazine and Magmoid Sulfadimer; ultra-violet irradiated rabies vaccine; and Immune Serum Globulin for the modification or prevention of measles. Members of the Pitman-Moore scientific staff are on hand to discuss recent research developments.

PRESTERN MFG. CORP.
Booth LL-10

The Prestern Manufacturing Corp., manufacturers of a complete line of x-ray accessories, are showing their products for the first time at a convention on the west coast. Featured are a new line of x-ray film dryers, x-ray film illuminators, darkroom lights, film loading bins, film filing cabinets, protective materials, and many other items necessary for the x-ray laboratory.

PRIMEX EQUIPMENT COMPANY
Booth N-37

The compact, efficient radiographic equipment shown in the Primex booth will be of special interest to the practitioner who has limited office space. Attendants will be pleased to explain the outstanding features.

W. F. PRIOR COMPANY, INC.
Booth B-18

At Booth B-18, W. F. Prior Company has on display its world famous loose-leaf references: Tice's *Practice of Medicine;* Lewis' *Practice of Surgery;* Brennemann's *Practice of Pediatrics;* and Davis' *Gynecology and Obstetrics.* A visit will convince all practitioners that the service rendered by the Prior Company is vast in its comprehensiveness and negligible in its cost.

THE PROCTER & GAMBLE CO.
Booth G-6

The Procter & Gamble Company offers the first five of a series of time-saving leaflet pads for doctors: *Instructions for Routine Care of Acne, Instructions for Bathing a Patient in Bed, Instructions for Bathing Your Baby, The Hygiene of Pregnancy,* and *Home Care of the Bedfast Patient.* Additional leaflet pads, designed to save the doctor's time in answering the patient's questions on routine home care, are being prepared.

PROFESSIONAL EQUIPMENT CO.
Booths N-31, 33

Professional Equipment Company exhibit their completely new series of Tilt Table X-Ray units. Feature of the exhibit is their new 100 MA-100 KV Two-Tube Tilt Table, equipped with a double focus 100 MA tube head and a separate fluoroscopic tube head, priced at $2,895 F.O.B. Chicago. Included in this price is the new Profexray all-automatic push-button control, designed for triple-interlocking control of time-KV-MA factors thereby permitting full use of 100 MA techniques with this unit.

THE PYRAMID RUBBER CO.
Booths N-13, 15

How air in the bottle prevents air in the infant's stomach is graphically demonstrated with Evenflo Nursers at booths N-13 and 15. A robot-like device simulates a baby nursing to show the action of the Evenflo patented twin valve nipple under actual nursing conditions. Also on display are Evenflo Brushless Baby Bottle Cleanser, the new Evenflo Deluxe Nurser with Pyrex brand glass, and the new Evenflo Electric Bottle Warmer.

QUALITY MATTRESS CO.
Booth LL-2

RADIUM CHEMICAL CO., INC.
Booth C-44

The Radium Chemical Company, Inc. exhibit a complete line of radium and radon applicators and accessories for the treatment of cancer and allied diseases. Representatives in attendance will be pleased to discuss with physicians the use of radium and radon in their practice.

RALSTON PURINA COMPANY
Booth D-5

RARE-GALEN, INC.
Booths N-5, 7

At these booths is an interesting display of Dermolate and Acidolate detergents of choice when soap is contraindicated. Also on display are Methyl Testosterone "Rare" and Testosterone Propionate "Rare"—for effective androgen therapy. Courteous medical service representatives in attendance will appreciate the opportunity to discuss with you the merits of these and other products of Rare-Galen.

(Continued on page 128)

WASHINGTON NEWS

The Physically Handicapped

Senate subcommittees now in the process of deciding what to do about two pieces of medical legislation have before them the American Medical Association's official recommendations. A. M. A. witnesses urged that:

1. Federal assistance to the physically handicapped be expanded, with all of this activity centralized in the Federal Security Agency, which now handles most of it.

2. The committee did not approve, in its present form, a bill granting federal assistance to cooperatives and nonprofit associations for establishing medical facilities, because of certain unwise and other unnecessary provisions.

Dr. Henry H. Kessler, in a statement filed with a subcommittee of the Senate Committee on Labor and Public Welfare, endorsed the objectives of S. 2273, which would increase the authority of the Federal Security Agency in rehabilitation. Dr. Kessler, a member of the A. M. A. Council on Industrial Health, also is president of two important organizations in this field, the National Council on Rehabilitation and the International Society for the Welfare of Cripples. He has been active in rehabilitation of the physically handicapped for 30 years.

First Dr. Kessler reviewed the history of rehabilitation, stressing the importance of local and private agencies. He said the time will come when every progressive community will have its own rehabilitation center, just as it has its own police station, firehouse and hospital. At the national level, he praised the Federal Security Agency's Office of Vocational Rehabilitation for the way it has stimulated progressive technical developments for assistance to the handicapped. Dr. Kessler said the Agency has thoroughly demonstrated its competence to administer all these activities "within the limits of its financial appropriations."

Other bills before the committee would transfer rehabiltation activities to the Labor Department to facilitate job placement (S. 3465) or turn them over to a special new agency (S. 1066). In opposing the former, Dr. Kessler pointed out, "Employment, in the last analysis, is the end product of rehabilitation only in the same sense that employment is the end product of education." He opposed S. 1066 because in his opinion "no good purpose could be served" merely by creating a new agency.

FSA Administrator Oscar Ewing also testified in favor of S. 2273, while Labor Secretary Maurice Tobin argued that the program be turned over to his department. The hearings were called after President Truman admitted he could not settle the dispute between Mr. Ewing and Mr. Tobin. Representatives of a number of interested organizations urged creation of a new department of rehabilitation.

Cooperative Medical Facilities

Hearings on S. 1805, for grants and loans to cooperative medical facilities, provoked a few sharp if not heated exchanges before another Senate Labor and Public Welfare subcommittee. The questioning was done by Senator Forrest Donnell (Republican, Missouri) and Senator Hubert Humphrey (Democrat, Minnesota), sponsor of the bill. Dr. Walter B. Martin, A. M. A. trustee, was official spokesman for the A. M. A. He noted that the bill proposed to help in establishing medical facilities not for use of the public at large, but for exclusive use of members of the organization, and that there was no appeal from the Surgeon General's ruling as to the actual need for such facilities. He also pointed out that the state would have no voice in determining need for facilities and that there was no provision for coordinating the new services with other similar services which might be available. He reminded the committee that under the bill as written "federal direction and control over these medical care plans will not merely be a possibility but an actuality."

During a question and answer exchange with Dr. Martin, Senator Humphrey agreed to change the bill to make the general public eligible for treatment in the clinics, to carefully define regulations limiting the power of the FSA administrator and to redefine the phrase "comprehensive medical care." However, he did not agree to bringing the states into the program because, he claimed, state boards were not friendly toward the coops and similar organizations. Senator Humphrey had no specific answer to Dr. Martin's objection that the bill would set a pattern for national socialized medicine. If everything objectionable in this direction were removed from the bill, Dr. Martin said, there would be nothing left but "a little Hill-Burton Act."

Representing the Minnesota State Medical Association, Dr. Reuben F. Erickson denounced the bill as unjustified, unfair and impractical. "Members of cooperative groups are neither indigent, destitute nor necessarily persons in the low income group," he said. "A large majority are well able to purchase, at the present time, medical care, hospital care, dental care and allied professional services." He observed that physicians and dentists often purchase their equipment by the payment of reasonable amounts over long periods of time, under private enterprise arrangements, and he asked why groups which hope to benefit from this bill could not equip themselves by the same procedure.

Another opposition witness was George H. Frates, Washington representative of the National Association of Retail Druggists. He argued that prescription services to be set up under the bill would result in unfair, tax-free competition to druggists.

Senator Humphrey opened the hearings by explaining the bill's objectives and provisions. Other favorable witnesses were:

Jerry Voorhis, executive secretary of the Cooperative Health Federation of America, who detailed cooperatives' experiences in health problems and their need for clinics, medical "workshops" and other medical facilities less expensive to maintain than hospitals.

Dr. Dean G. Clark, president of the federation, whose testimony was along the same line. Senator Donnell questioned him in detail regarding the personnel, structure and objectives of the Cooperative Health Federation.

Lloyd Halverson, representing the National Grange, who said health cooperatives "or something like them" are basic to any self-help solution of rural health problems.

Gerald W. Heaney, representing the Arrowhead Health Center at Duluth, Minn. Mr. Heaney told the success story of a cooperative health plan at Two Harbors, Minn. He said before the plan started there were two resident physicians in the town (population 5,000). Now there are five, four of whom participate in the health plan. Mr. Heaney told of difficulties in arranging contracts with the two Duluth hospitals. He also said that the St. Louis County (Minn.) Medical Society to date has not acted on membership applications of any physicians who are participating in either the Duluth or Two Harbors group health plan.

National Science Foundation

This Congress has established a National Science Foundation. Legislation on this subject has been before the last three Congresses, and one bill reached President Truman's desk in 1947. He vetoed it because he objected to its administrative structure. Almost from the start the American Medical Association has approved the idea of a Science Foundation, and it has worked actively in support of various bills on this subject.

The Foundation will promote basic research and education in all sciences, make grants and loans, award scholarships and act as an international clearing house on scientific information. It will also take over and maintain a register of scientific personnel, which the U. S. Employment Service started some years ago. It may engage in work related to defense only at the request of the Secretary of Defense, and it may not become involved in atomic energy work without permission of the Atomic Energy Commission.

An unpaid board of twenty-four members, appointed by the President but subject to confirmation by the Senate, will administer the Foundation. The operating head will be a director, appointed in the same way, but the law provides that the President may not nominate him until the board has made its recommendations. In major decisions the director is required to comply with recommendations of the board.

Divisions will be established to handle medical research, mathematical, physical and engineering sciences, and biologic sciences. A fourth division will be concerned with scholarships and fellowships. Other divisions and special committees and commissions may be created by the board. Only half a million dollars (not yet appropriated) is authorized by the law to finance the Foundation in the first year, but a maximum of $15,000,000 has been set for subsequent years.

ORGANIZATION SECTION

Official Notes

INVITATION TO TOKIO, JAPAN

April 13, 1950

Dr. Ernest E. Irons
122 South Michigan Avenue
Chicago 3, Ill.

Dear Dr. Irons:

I have been informed that the American President Lines is considering developing a post American Medical Association Convention trip to the Philippines, and possibly to Japan, for those doctors who may desire to take such a trip.

Will you please extend to the members of the American Medical Association an invitation that we would be delighted to have them visit us here during such a trip and will be glad to arrange for visits to medical institutions which may be of interest.

The matter of clearances will, of course, be on a tourist basis and provision of billets, etc., will be handled on that basis through the usual channels.

Sincerely yours,
CRAWFORD F. SAMS,
Brigadier General, Medical Corps
Chief
General Headquarters
Supreme Commander for the Allied Powers
Public Health and Welfare Section
APO 500

State Legislation

Massachusetts

Bills Introduced.—S. 618 proposes general amendments to the law relating to the organization of nonprofit hospital service corporations. H. 2575 proposes the enactment of a cash sickness compensation law.

Mississippi

Bills Enacted.—H. 628 was approved April 14, 1950. It provides an appropriation for the construction and equipping of a four year medical school to be operated as a part of the University of Mississippi. S. 456 was approved April 17, 1950. It authorizes the state board of health to establish and provide for health education programs in the public schools and to employ county health educators for such purpose.

New Jersey

Bill Introduced.—A. 217 has become chapter 88 of the Laws of 1950. It legalizes the filling of prescriptions for narcotic drugs written by duly licensed physicians of other states for patients residing in New Jersey.

New York

Bills Enacted.—A. 647 has become chapter 794 of the Laws of 1950. It amends the public health law relating to the uniform narcotic drug act by providing that the word "physician" as used therein shall include osteopaths. A. 1637 has become chapter 681 of the Laws of 1950. It amends the general municipal law by indemnifying physicians and dentists for services rendered in the course of a home care service maintained by a public institution. A. 2051 has become chapter 587 of the Laws of 1950. It authorizes the creation of a corporation to establish, maintain and conduct a hospital in the state for the treatment of cancer and allied diseases. A. 2432 has become chapter 372 of the Laws of 1950. It permits the organization of a corporation to be known as the National Association for Mental Health, Inc., the purposes of which would be to promote mental health and to work toward the prevention of mental handicap and the improved care and treatment of persons suffering from such handicap. A. 2890 has become chapter 669 of the Laws of 1950. It provides that if neither the medical examiner nor his assistant in Dutchess County is a pathologist, then the board of supervisors shall appoint an assistant county medical examiner whose only qualification for office and duties shall be that of pathologist. S. 2348 has become chapter 567 of the Laws of 1950. It amends the mental hygiene law by proposing regulations for the licensing of psychiatric clinics.

Virginia

Bill Enacted.—H. 61 has become chapter 569 of the Laws of 1950. It provides certain amendments to the existing law relating to the granting of medical scholarships.

Coming Medical Meetings

American Medical Association, San Francisco, June 26-30. Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secretary.

Aero Medical Association, Chicago, May 29-31. Dr. Thomas H. Sutherland, 214 S. State St., Marion, Ohio, Secretary.
American Association for the Surgery of Trauma, Salt Lake City, June 22-24. Dr. Charles G. Johnston, 1512 St. Antoine St., Detroit 26, Secretary.
American Association of Genito-Urinary Surgeons, Hershey, Penn., Hotel Hershey, May 24-26. Dr. Norris J. Hechel, 122 S. Michigan Ave., Chicago 3, Secretary.
American Association of the History of Medicine, Boston, May 21-23. Dr. Benjamin Spector, 416 Huntington Ave., Boston 15, Secretary.
American Broncho-Esophagological Association, San Francisco, Mark Hopkins Hotel, May 25-26. Dr. Edwin N. Broyles, 1100 N. Charles St., Baltimore 1, Secretary.
American College of Chest Physicians, San Francisco, June 22-25. Mr. Murray Kornfeld, 500 N. Dearborn St., Chicago 10, Executive Secretary.
American College of Radiology, San Francisco, June 25. Mr. William C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secretary.
American Dermatological Association, Jasper National Park, Alberta, Canada, June 18-22. Dr. Louis A. Brunsting, 102 Second Ave. S.W., Rochester, Minn., Secretary.
American Diabetes Association, San Francisco, Hotel Whitecomb, June 24-25. Dr. John A. Reed, 1 Nevins St., Brooklyn 17, Secretary.
American Geriatrics Society, New York, Hotel Commodore, June 1-3. Dr. Malford W. Thewlis, 25 Mechanic St., Wakefield, R. I., Secretary.
American Hearing Society, Chicago, Drake Hotel, June 15-17. Mrs. Frances E. Lee, 817 Fourteenth St., N.W., Washington 5, D. C., Secretary.
American Heart Association, San Francisco, Fairmont Hotel, June 22-25. Dr. John J. Sampson, 1775 Broadway, New York 19, Secretary.
American Laryngological Association, San Francisco, May 23-24. Dr. Louis H. Clerf, 128 S. Tenth St., Philadelphia 7, Secretary.
American Laryngological, Rhinological and Otological Society, San Francisco, May 25-27. Dr. C. Stewart Nash, 277 Alexander St., Rochester 7, N. Y., Secretary.
American Medical Women's Association, Carmel, Calif., June 20-22. Dr. Grace Talbott, 909 Hyde St., San Francisco 9, Secretary.
American Neurological Association, Atlantic City, Claridge Hotel, June 12-14. Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secretary.
American Ophthalmological Society, Hot Springs, Va., The Homestead, May 31-June 2. Dr. Maynard C. Wheeler, 30 W. 59th St., New York 19, Secretary.
American Orthopedic Association, Virginia Beach, Va., May 23-26. Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secretary.
American Otological Society, San Francisco, May 21-22. Dr. Gordon D. Hoople, 1100 E. Genesee St., Syracuse 10, N. Y., Secretary.
American Proctologic Society, Los Angeles, July 1-3. Dr. W. Wendell Green, 1838 Parkwood Ave., Toledo 2, Ohio, Secretary.
American Radium Society, New York, Roosevelt Hotel, May 25-26. Dr. Hugh F. Hare, 605 Commonwealth Ave., Boston 15, Secretary.
American Society for the Study of Sterility, San Francisco, Sir Francis Drake Hotel, June 24-25. Dr. John O. Haman, 490 Post St., San Francisco 2, Secretary.
American Society of X-Ray Technicians, Columbus, Ohio, Deschler-Wallick Hotel, May 28-June 2. Genevieve J. Eilert, R.T., 16 Fourteenth St., Fond du Lac, Wis., Executive Secretary.
American Urological Association, Washington, D. C., Hotel Statler, May 29-June 1. Dr. Charles H. deT. Shivers, Boardwalk National Arcade Bldg., Atlantic City, N. J., Secretary.
Association for the Study of Internal Secretions, San Francisco, June 23-24. Dr. Henry H. Turner, 1200 N. Walker St., Oklahoma City 3, Secretary.
Conference of Presidents and Other Officers of State Medical Associations, San Francisco, Palace Hotel, June 25. Mr. John E. Farrell, 106 Francis St., Providence, R. I., Secretary.
Illinois State Medical Society, Springfield, Illinois State Armory, May 23-25. Dr. Harold M. Camp, 224 S. Main St., Monmouth, Secretary.
Maine Medical Association, Poland Spring, June 18-20. Dr. Frederick R. Carter, 142 High St., Portland 3, Secretary.
Medical Library Association, Boston, June 19-22. Miss Helen Hlavac, 209 East 23d St., New York 10, Secretary.
Minnesota State Medical Association, Duluth, June 12-14. Dr. B. B. Sooster, 496 Lowry Medical Arts Bldg., St. Paul 2, Secretary.
North Dakota State Medical Association, Grand Forks, May 27-30. Dr. O. A. Sedlak, 702 First Ave. S., Fargo, Secretary.
Oklahoma State Medical Association, Oklahoma City, June 4-7. Dr. Lewis J. Moorman, 210 Plaza Court, Oklahoma City, Secretary.
South Dakota State Medical Association, Mitchell, May 20-23. Dr. Roland G. Mayer, 22½ S. Main St., Aberdeen, Secretary.
Western Association of Industrial Physicians and Surgeons, San Francisco, June 25. Dr. Christopher Lezgo, C. & H. Sugar Refining Corp., Crockett, Calif., Secretary.
Western Branch, American Public Health Association, Portland, Ore., May 30-June 1. Mr. Walter S. Mangold, University of California, Berkeley, Calif., Secretary.

International Meetings

International Cancer Research Congress, Paris, France, July 17-22. Secretariat, 6 Ave. Marceau, Paris 6, France.
International Congress of Ophthalmology, London, England, July 17-21. Mr. Keith Lyle, 45 Lincoln's Inn Fields, London W.C.2, England, Secretary.
International Congress on Asthma, Mont Dore, France, June 3-4. Secretariat, 59 rue Bonaparte, Paris, France.

GOVERNMENT SERVICES

NAVY

TRAINING REASSIGNMENTS

Seven regular medical officers now under instruction at the University of Pennsylvania Graduate School of Medicine, Philadelphia, have been nominated for new duty assignments in continuation of their training under the Navy Graduate Training Program. They are:

Comdr. Vernon W. H. Campbell, to instruction in internal medicine, Naval Hospital, St. Albans, L. I., N. Y.

Comdr. George H. Davis, to a residency in radiology, Naval Hospital, San Diego, Calif.

Lieut. Comdr. George H. Davis, to a residency in radiology, Naval Hospital, San Diego, Calif.

Lieut. Comdr. Richard E. Kelley, to a residency in dermatology and syphilology, Naval Hospital, Philadelphia.

Lieut. Comdr. William C. Livingood, to a residency in otolaryngology, Naval Hospital, Philadelphia.

Lieut. Comdr. James H. Lockwood, to a residency in dermatology and syphilology, Naval Hospital, Philadelphia.

Lieut. Comdr. Louis E. Tebow, to a residency in surgery, Naval Hospital, National Naval Medical Center, Bethesda, Md.

Lieut. Joseph S. Burble, to a residency in internal medicine, Naval Hospital, Philadelphia.

CAPTAIN ASTON RETIRES

Capt. Melville J. Aston (MC), commanding officer of the Naval Medical School, Bethesda, Md., retired on May 1 after more than 33 years of active duty in the Navy. During World War I he served aboard the *U.S.S. North Dakota, Black Hawk* and *Baltimore*. In the later peace years he also saw duty aboard the *U.S.S. Amphion, Shawmut, Chaumont, Arkansas* and *New York*. After the outbreak of World War II, Captain Aston was assigned to the *U.S.S. Solace* as senior medical officer, for which service he received a letter of commendation from Admiral C. W. Nimitz (USN), for handling casualties of the attack on Pearl Harbor. He also received the Legion of Merit, with Combat Distinguishing Device, for service in waters frequented by Japanese forces, from December 1941 to August 1943. Captain and Mrs. Aston plan a trip to Europe this summer and then will live in Philadelphia, where he will engage in medical activities.

PERSONAL

Capt. F. W. Farrar (MC) will relieve Capt. J. L. Schwartz (MC), as director of the Publications Division, Bureau of Medicine and Surgery, and as editor of the *United States Armed Forces Medical Journal*. Captain Schwartz, the first editor in chief of the journal, will be transferred to the Office of Naval Officer Procurement, Los Angeles. Captain Farrar will continue to edit the *Medical News Letter* in addition to the duties of his new assignment.

Comdr. W. J. Dougherty (MC), head of the Communicable Disease Control Section of the Preventive Medicine Division, is being assigned to the staff of the Deputy Commander, Military Sea Transport Service, Atlantic, in Brooklyn. He will be relieved by Comdr. Robert E. Rock (MC), previously attached to the Navy Unit, Government of Guam, as director of public health.

Capt. H. K. Sessions (MC), deputy director of the Preventive Medicine Division, Bureau of Medicine and Surgery, has been assigned to the Medical Department of the Naval Training Center, San Diego, Calif., for duty. Capt. Frank R. Philbrook (MC), now assigned to the Research and Development Board of the Navy Department, will assume Captain Sessions' duties as deputy director.

Capt. LeRoy A. Wylie (USNR, MC) Director of the Reserve Division in the Bureau of Medicine and Surgery was placed on the Retired List May 1, having reached the statutory retirement age. He plans to return with his wife to St. Petersburg, Fla.

VETERANS ADMINISTRATION

"THE GREATEST HOSPITAL-BUILDING PROGRAM IN ALL HISTORY"

The Veterans Administration announces that it will climax 27 years of hospital construction at the close of this calendar year with the greatest hospital-building program in all history going into its final stages. According to the administration's estimates, by the end of 1950 all but three of the 67 new hospitals in the program will have been completed or will be in the process of construction. The VA Technical Service has been turning out plans and specifications at the rate of practically one hospital a month, and the hospitals of the entire program are being completed at virtually the same speed. Plans and specifications for 13 of the last 14 hospitals yet to be placed under contract will have been completed this year, and a total of 26 of the 64 hospitals will have been opened to receive patients.

VA first entered the hospital construction field in 1923. The current program, consisting of 82 projects, includes new hospitals, additions to certain existing hospitals and conversion of certain existing hospitals for the care of patients from the type cared for in those hospitals in the past. Forty-one of these projects are being accomplished by plans and specifications as prepared by the personnel of VA Technical Service and one by an architectural firm under the direction of Veterans Administration.

Of the total number of hospitals now being operated by VA, 95 either are new hospitals on new sites or include major hospital additions at existing hospitals. Plans and specifications for all 95 projects were prepared by the Technical Service. Even in that portion of the 1947 program assigned to the Corps of Engineers for design by outside architects, the criteria governing the design of these hospitals was prepared by VA. So far as is known, VA is the only government agency that is self contained to the extent of preparing all plans and specifications for all its projects.

MISCELLANEOUS

RESEARCH IN PHYSICAL SCIENCES

The U. S. Atomic Energy Commission awarded 12 new contracts in physical research totaling $1,345,660 during the first three months of 1950. The new contracts were awarded to 12 different institutions in 10 states, the District of Columbia and the Territory of Puerto Rico. In the same period, the AEC also renewed an existing contract. The award of the new contracts brought to 67 the number of unclassified research projects in the physical sciences supported by the AEC at universities and industrial laboratories. The AEC also supports 60 additional unclassified physical research projects jointly with the Office of Naval Research. The largest contract awarded during the three month period was for $1,250,000 for the design, construction and operation for three years of a one billion volt electron synchrotron at the California Institute of Technology.

The new contracts were awarded under the AEC policy to assist the research programs of universities and other independent research institutions in certain fields of science related to atomic energy.

Information on how formal proposals for AEC support of research projects in the physical sciences should be submitted may be obtained from the Division of Research, U. S. Atomic Energy Commission, Washington 25, D. C.

Medical News

(Physicians will confer a favor by sending for this department items of news of general interest; such as relate to society activities, new hospitals, education and public health. Programs should be received at least two weeks before the date of meeting.)

ALABAMA

New Hospital in Mobile.—The new $585,000 Blessed Martin De Porres Hospital for Negro patients has been opened in Mobile. Built on a 2½ acre tract purchased from the city by the Catholic Diocese of Mobile, it has 35 beds but is so planned that it may be expanded to 100 bed capacity. The hospital was built under the Federal Hospital Construction Act and has 18 beds for general patients, 12 for maternity cases and 5 for children in the three 4 bed wards, eight semiprivate rooms, two private rooms and the 5 bed pediatric section.

CALIFORNIA

Eye Research Facilities Expanded.—An $18,000 extension of the research laboratories of the Division of Ophthalmology at the University of California Medical School, San Francisco, has been completed. The extension provides three new research laboratories. Construction was financed by private patients treated by members of the staff of the division. One laboratory will be used in research on uveitis and a second in research on virus diseases of the eye; the third laboratory will be for studies of radiation effects on the function of the eye.

Institute on Medicolegal Problems.—The Medical School and the Law School, University of California at Los Angeles, University Extension, will present a three day Institute on Medicolegal Problems on the campus of the university, June 19-21. The course is offered primarily to doctors and lawyers but is open to all interested persons. Registration is $10. The program includes the following visiting speakers:

Richard Ford, Boston, Medicolegal Investigation of Sudden Death.
Alan R. Moritz, Cleveland, The Medicolegal Autopsy: Crime Patterns.
Rutherford B. H. Gegdwehl, St. Louis, Should the Coroner System Be Continued?

The general chairman of the congress is Dr. Louis J. Regan, Los Angeles.

DELAWARE

Anniversary Program at duPont Institute.—The following scientific program has been planned for the tenth anniversary celebration of the Alfred I. duPont Institute of the Nemours Foundation at Rockland Road, Wilmington, June 17.

Alfred R. Shands Jr., Wilmington, Ten Years of the Care and Treatment of Crippled Children.
Frank H. Krusen, Rochester, Minn., Physical Medicine in Europe with Reference to the Crippled Child.
Miss Winifred C. Kahmann, Indianapolis, Ind., Occupational Therapy in a Crippled Children's Hospital.
Mr. Lawrence J. Link, Chicago, Education of the Crippled Child.
Lee E. Farr, Upton, Long Island, N. Y., Research in a Crippled Children's Hospital, A Report on Ten Years' Experience at the Alfred I. duPont Institute.
Mrs. William G. Hamm, Atlanta, Ga., Place of the Parents in the Care of the Handicapped Child.
Harold Westlake, Ph.D., Chicago, Speech Problems in the Handicapped Child.
Herbert K. Cooper, Lancaster, Pa., Organization of a Model Cleft Palate Clinic with Case Presentations.
Winthrop M. Phelps, Baltimore, Md., Cerebral Palsy, A Cause of Crippling in Childhood.
Leslie B. Hohman, Durham, N. C., Emotional Aspects of Crippling in Childhood.

ILLINOIS

Hospital News.—About 8,000 persons attended the dedication ceremonies of the 50 bed Clay County Hospital in Flora March 12 to see the completion of the project that they had begun seven years ago. The hospital was built under the state's hospital construction program at a cost of about $915,000.

Tuberculosis Declines in Illinois.—A special report by the state Division of Vital Statistics shows that seven Illinois counties reported no deaths from tuberculosis in 1948. During the same year sixteen counties reported only one death each from this disease. Putnam County reported no tuberculosis deaths during 1946, 1947 and 1948; Schuyler County reported none in both 1947 and 1948. Other counties reporting no deaths from tuberculosis in 1948 are Calhoun, Edwards, Hamilton, Jersey and Wabash. The report traced tuberculosis mortality from 1945 to 1948. Although 3,159 persons in the state died from tuberculosis in 1945, the 1948 figure dropped to 2,657. Less than 300 of the reported deaths were among persons under 25.

Nutrition Workshop.—The third Annual Nutrition Workshop for persons interested in community nutrition, sponsored by the Illinois State Nutrition Committee and the College of Agriculture, University of Illinois, will be held on the campus in Urbana, June 19-23. Further information may be obtained from Grace B. Armstrong, Extension Service, University of Illinois, Urbana, or Blanch Lenning, Illinois Public Aid Commission, 160 N. LaSalle.

Chicago

City Opens New Heart Clinic.—The Chicago Health Department has established a new clinic at La Rabida Sanitarium for the early detection of rheumatic heart disease in children to supplement the work of the sanitarium. The clinic will offer complete laboratory services, roentgen ray, electrocardiograph and other aids. It will accept referrals by private physicians of persons up to 21 years of age. A complete clinical report will be given to the physician.

Personals.—Dr. Alfred A. Schiller of the University of Illinois College of Medicine has been awarded $500 for travel by the Federation of American Societies for Experimental Biology. The funds will be used for the presentation of a paper before the Eighteenth International Physiological Congress at Copenhagen, Denmark, August 15-18. The paper is entitled "Effects of a Vitamin P Flavanoid and Ascorbic Acid on the Cutaneous Circulation Determined by a New Quantitative Method."——Dr. James W. J. Carpender, Chicago, has been named as the official representative of the University of Chicago to the International Congress of Radiology, which will be held in London July 23-30. Dr. Carpender will also visit the larger radium and x-ray centers in England, Paris and the Scandinavian countries.——Dr. Helmut P. G. Seckel, assistant professor of pediatrics at the university, will be at the University of Frankfurt, Germany, from April to October. In July he will give a paper at the Sixth International Congress of Pediatrics to be held at Zurich.

Faculty Promotions.—Dr. Robert M. Kark, clinical associate professor, has been promoted to professor of medicine at the University of Illinois, effective July 1. Dr. Kark will resign as chief of clinical investigation at the Army Medical Nutrition Laboratory, Chicago. During the war he was a member of a joint United States and Canadian research team which was responsible for improving army rations. He also served as consultant in medical research to the Canadian army and as head of a medical research unit for the Allied land forces in Southeast Asia. Born at Capetown, South Africa, Dr. Kark received his advanced education from the University of Capetown and from Guy's Hospital Medical School of the University of London. Prior to his appointment at the university, he served as a Rockefeller Traveling Fellow at the Thorndike Memorial Laboratory of the Boston City Hospital and the Harvard Medical School.——Dr. Earl W. Cauldwell, a research associate in the department of pathology at the University of Illinois College of Medicine, has been promoted to assistant professor, effective July 1. Dr. Cauldwell has served as a member of the faculty of the university since September 1948. He is concerned primarily at present with the study of betatron radiation effects on cartilage, bone and bone marrow. The study has been made possible by a grant from the U. S. Public Health Service.

New Research Hospital.—Ground was broken May 13, for the $14,000,000 Veterans Administration Research Hospital, which will become a part of the Northwestern University Medical Center. The 17 story structure will occupy the entire block bounded by Huron Street, Fairbanks Court, Erie Street and McClurg Court. Construction work is expected to require about 20 months. Dr. Richard H. Young, dean of the Northwestern Medical School, presided. Addresses were made by Mr. Carl R. Gray Jr., administrator of veterans affairs, and Dr. J. Roscoe Miller, president of Northwestern University. There will be accommodations for 90 nurses and 50 resident interns and research workers. The Veterans Administration and Northwestern's medical school will work together in operating the hospital. A committee, consisting of Dr. Young and a number of the school's department heads, will serve as consultants, assisting in the medical supervision and staffing of the hospital. Equipment to be installed in the new hospital includes portable television cameras for three operating rooms with outlets to classrooms, lecture rooms and the assembly room. All necessary television conduits are to be installed in the structure so the hospital will be ready to use color television for medical training. X-ray equipment will occupy the entire second floor. A betatron for research work and treatment of malignant diseases will be housed in the second sub-basement. Research facilities will occupy two entire floors.

INDIANA

District Medical Society Meeting.—The annual meeting of the Third District Medical Society was held at the Colgate-Palmolive-Peet Co. building in Jeffersonville May 17. After a tour through the plant, Dr. K. Armand Fischer, Louisville, Ky., presented a paper on "The Evaluation of Industrial Accidents" and Dr. Winston U. Rutledge, Louisville, spoke on "Industrial Allergies." The speaker of the evening was Dr. Elmer L. Henderson, Louisville, President-Elect of the American Medical Association.

KANSAS

Dr. Lemoine to Head Eye Department.—Dr. Albert N. Lemoine Jr., member of the faculty since 1947, has been appointed chairman of the department of ophthalmology at Kansas University School of Medicine, Kansas City. He succeeds Dr. John A. Billingsley, who is retiring because of illness but will remain active in the department. Dr. Lemoine received his medical degree from Washington University School of Medicine, St. Louis, in 1943. He was a teaching and resident fellow in ophthalmology at Harvard Medical School, Boston. Last summer he was a member of the Alaska Medical Mission, conducted jointly by the American Medical Association, U. S. Department of the Interior and the Army Air Forces.

KENTUCKY

District Medical Society Meetings.—Physicians from the 12 counties composing the Third Councilor District of the Kentucky State Medical Association attended a meeting held at the Helm Hotel, Bowling Green, April 11. Guest speakers from Nashville, Tenn., were Dr. Harrison J. Shull, whose subject was "Diagnostic Considerations of the Jaundiced Patient," and Dr. J. Allen Kennedy, who spoke on "Cardiac Emergencies."——The spring meeting of the Eastern Kentucky Medical Association comprising the Ninth Councilor District of the Kentucky State Medical Association was held May 11 at the Brown Hotel, Prestonsburg. Papers were presented by two Louisville physicians: Dr. Charles M. Edelen spoke on "Surgery of the gallbladder" and Dr. Sam A. Overstreet on "Massive Hemorrhage of the Intestinal Tract." Other guest speakers were Drs. Francis A. Scott and Ray M. Bobbitt, both of Huntington, W. Va., who discussed "Diagnosis and Treatment of Backaches" and "Practical Points in the Management of Problems of the Female Bladder," respectively.——On May 11 a joint dinner meeting of the Second Councilor District Medical Association and the Second District Woman's Auxiliary was held at the Soaper Hotel, Henderson. Dr. George W. Pedigo Jr., Louisville, delivered an address on "Recent Advances in Management of Congestive Heart Diseases."

MICHIGAN

Hospital Clinic Day.—Bon Secours Hospital at Grosse Pointe will hold its annual clinic day June 6, when members of its staff will present an all day and evening program. Chairmen of the three sessions will be Drs. James H. Blain Jr., Hugh Stalker and Donald G. Ross.

McGraw Lectureship.—The Detroit Surgical Association has established an annual lectureship in honor of Dr. Theodore Andrews McGraw, founder and first professor of surgery at the Detroit College of Medicine. An appropriate medal will be presented to each lecturer. Dr. Frederick A. Coller, professor of surgery at the University of Michigan Medical School, Ann Arbor, gave the first lecture May 16.

MINNESOTA

Poliomyelitis Planning Committee.—The State Board of Health has formed a statewide planning committee to coordinate the functioning of state and local agencies to deal with problems that may arise in connection with poliomyelitis in Minnesota. Dr. Gaylord W. Anderson, director school of public Health, University of Minnesota, Minneapolis, is chairman of the committee.

Tilderquist Memorial Library.—The library of the St. Louis County Medical Society will be incorporated as the David L. Tilderquist Memorial Library in honor of the Duluth ophthalmologist and otolaryngologist, the library's "best friend and most avid patron," who died September 26, 1948. The memorial corporation will be separate from the medical society. At present the library has nearly 3,000 bound volumes and receives 105 weekly, monthly and quarterly periodicals on medicine.

MISSOURI

Institute on Medical Care.—A special Institute on Social Aspects of Medical Care will be offered by the Saint Louis University School of Social Science in the summer session, June 20 through July 7. The institute, which carries two hours of academic credit, is planned particularly for members of religious communities engaged in hospital and clinical administration or social service in a clinical setting. Included in the curriculum will be study of the hospital as a social agency in a community, means of understanding and meeting the social needs of people seeking medical care and the responsibility of hospitals in providing total medical care.

MONTANA

School Health Conference.—On April 15 Dr. Frank L. McPhail, vice president of the Montana State Medical Association, presided at a special meeting of committee chairmen, representatives of each of the component societies and representatives of the Woman's Auxiliary, called to discuss the advisability of conducting a Conference on Physicians and Schools. It is planned to conduct such a conference in Helena on June 20. Invitations will be issued to all physicians, dentists, local health planning committees, boards of education, departments of health and all other agencies interested in the health of the community. The purpose of the conference will be to outline basic principles for a school health program, to stimulate joint action of all interested agencies to develop sound school health services and to agree on methods of improving and extending such services.

NEW YORK

Community Nutrition Institute.—Syracuse University and the New York State Department of Health will jointly direct the fourth Community Nutrition Institute at Syracuse University June 10 to July 1. It is an in-service program in public health nutrition planned for physicians, community nutritionists, clinical dietitians, public health nurses, nutrition instructors, health educators and other interested personnel. Two hours' credit toward an advanced degree is available to qualified students. Physicians appearing on the program include:

Wilhelm C. Hueper, Bethesda, Md., Degenerative Vascular Diseases of the Adult.
Frank H. Bethell, Ann Arbor, Mich., Review of the Etology and Treatment of Anemias.
Winslow T. Tompkins, Philadelphia, Nutrition in Pregnancy.
G. Arnold Crook, Syracuse, Fatigue Problems Among College Students.
Brunhilde Bruch, New York, Emotional Factors Affecting the Nutrition of the Child and the Adolescent.

A symposium on Opportunities for Nutrition Teaching in Clinics will be held Friday morning, the participants being Dr. Louis J. Hackett Jr., Albany; Miss Catherine Leamy, Washington, D. C.; Miss Esther Flemming, and Miss Harriet Stevens and Mrs. Dorothy Goldman, Syracuse. On June 26 Motivation in Community Nutrition will be discussed by Arthur W. Combs, Ph.D., Syracuse, Dr. Iago Galdston, New York and Mary E. Spenser, Ph.D. Inquiries should be directed to Dr. Ann Bourquin, College of Home Economics, Syracuse University, Syracuse 10. At the banquet Wednesday at 7 p. m. Dr. Paul R. Cannon, Chicago, will speak on "The Interrelation of Theory and Practice in the Development of Knowledge of Protein Nutrition." The approximate cost of $100 for the two week institute includes board, room and all fees, except a $5 matriculation fee for those desiring graduate credit.

New York City

Academy of Sciences Building.—The new building of the New York Academy of Sciences at 2 East Sixty-Third Street was opened April 11. Henceforth all meetings and activities of the academy will be conducted at the new address.

Testimonial Dinner.—The Board of Directors and Officers of the Warschauer Haym Salomon Home for the Aged, New York, honored Dr. Max J. Schroeder at a testimonial dinner on April 30 in recognition of his devotion to the cause of healing and alleviation of suffering and in appreciation of his untiring efforts on behalf of the sick and feeble old men and women, as medical director of the home for many years.

Institute on Treatment of Atomic Injuries.—New York Medical College, Flower and Fifth Avenue Hospitals announced plans April 22 for an institute on the treatment of atomic injuries and the organization necessary for medical disaster relief, to be held at the school June 5. Seniors at the school will attend the institute, and, in addition, space will be available for 200 practicing physicians. Those interested in enrolling should apply for reservations to Dr. J. A. Werner Hetrick, dean, New York Medical College, Flower and Fifth Avenue Hospitals, Fifth Avenue and 106th Street. No fee will be charged.

NORTH CAROLINA

Personal.—Marjorie A. Swanson, Ph.D., assistant professor of biochemistry at Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, has received a travel award of $500 from the Federation of American Societies for Experimental Biology to attend the eighteenth International Congress of Physiology in Copenhagen in August. She will present a paper on "Phosphotases of the Liver."

Cerebral Palsy Hospital.—The North Carolina Cerebral Palsy Hospital near Duke University in Durham was dedicated March 31. The hospital, built at a cost of $527,000, will care for mentally normal children under 16 years of age who are afflicted with cerebral palsy, regardless of their ability to pay. Gov. W. Kerr Scott and Mr. Lawrence Linck, executive director of the National Society for Crippled Children and Adults, Chicago, spoke at the ceremonies. Dr. Lennox D. Baker, medical director of the school of physical therapy at Duke University, is the medical director.

PENNSYLVANIA

Tuberculosis Society Meeting.—The annual conference of the Pennsylvania Tuberculosis and Health Society will be held at the Abraham Lincoln Hotel in Reading May 23-26. There will be a workshop to consider methods for publicizing and interpreting the public health survey made recently in Pennsylvania. The Pennsylvania Conference of Tuberculosis Secretaries will be held Wednesday afternoon. The Medical Session of the Pennsylvania Trudeau Society will meet Thursday morning. Visiting speakers include:

Kirby S. Howlett Jr., Shelton, Conn., Place of Chemotherapy in the Treatment of Tuberculosis.
Valentine L. Elliott, Rockville, Md., What a Local Health Unit Can Mean to You.
Norman M. Locke, Ph.D., Federal Security Agency, Washington, D. C., Place of the Merit System in the Public Health Agency.
H. Stuart Willis, McCain, N. C., Medical Research in Tuberculosis.

Philadelphia

Dr. White to Speak on Diabetes.—The annual meeting of the Undergraduate Research Society of Hahnemann Medical College will be held at 2 p. m. May 24 in Klahr Auditorium. Original student papers will be presented. Dr. Priscilla White of Boston will speak on "Juvenile Diabetes" at 5 p. m.

Postgraduate Seminar.—The Third Annual Postgraduate Seminar, sponsored by the Hahnemann Medical College Alumni Association, will be held June 13-14 at the college. The program will include seminar and panel discussions. One should make registrations in advance by writing to Lees M. Schadel Jr., M.D., General Chairman, at the Alumni Office at the college.

Appoint Four Department Heads.—Hahnemann Medical College has appointed Dr. Charles M. Thompson as professor and head of the department of gastroenterology, succeeding Dr. Harry M. Eberhard, retired. Dr. Thompson, a graduate of the Hahnemann Medical College (1931), has been clinical professor of medicine at the college. Dr. J. Stauffer Lehman has been made professor and head of the department of radiology succeeding Dr. Jacob W. Frank, retired. Dr. Lehman has been a clinical professor of roentgenology and associate professor of oncology at the medical college. Dr. Joseph E. Imbriglia is the new head of the department of clinical pathology with the title of professor. He is a graduate of Temple University School of Medicine, Philadelphia (1938). Dr. Charles H. Hollis has been named professor and head of the department of otolaryngology, succeeding Dr. Joseph V. F. Clay, retired. Dr. Hollis has been an instructor in pediatrics at Tufts College Medical School, Boston, and assistant physician at the Boston Dispensary. He is a graduate of the Tufts College Medical School (1940).

Pittsburgh

Appoint Medical Center Coordinator.—Dr. Glidden L. Brooks, Philadelphia, has been appointed as co-ordinator of the Medical Center hospitals and clinics and professor of hospital administration at the University of Pittsburgh, effective June 1. In addition to co-ordinating the services of the medical center hospitals, Dr. Brooks will be responsible for developing the courses in hospital administration in the Graduate School of Public Health. After graduation from the University of Nebraska in 1933 Dr. Brooks received his medical degree from Harvard Medical School, Boston, in 1937. He studied at Children's Hospital in Boston for five years and served as instructor in pediatrics at Harvard. He was in military service between 1942 and 1946, engaged in a variety of public health administrative activities. Between 1946 and 1949 he was executive director at the Central Maine General Hospital, Lewiston. His most recent appointment has been as associate director of the American Academy of Pediatrics' Committee for the Improvement of Child Health and as associate in pediatrics at the University of Pennsylvania School of Medicine. Dr. Brooks was certified by the American Board of Pediatrics in 1945.

TEXAS

State Sanatorium Personnel Changes.—Dr. Howard E. Smith, director of the Division of Tuberculosis of the Texas State Department of Health at Austin, has been appointed medical director and coordinator of the State Tuberculosis Sanatorium, at Sanatorium, effective April 1. Dr. Joseph B. McKnight retired as superintendent of the sanatorium after serving as executive officer of the institution for more than 36 years. He is succeeded by Dr. Rodger G. Smyth, assistant superintendent. The name of the state sanatorium was changed to McKnight State Sanatorium in March in honor of Dr. McKnight.

VIRGINIA

Honor Dr. Sanger on Twenty-Fifth Anniversary.—Dr. William T. Sanger, president of the Medical College of Virginia, Richmond, was honored at a program April 27 at the college on the occasion of his twenty-fifth year as president. Climaxing a program of tributes Dr. Sanger was given a new car by the faculty, students and personnel of the college and presented a silver bowl by the college's Board of Visitors. Among those present were Governor John Stewart Battle of Virginia; Mayor W. Stirling King of Richmond; Dr. Lonsdale J. Roper, commissioner of the Virginia State Health Department; George M. Modlin, LL.D., president of the University of Richmond; Dr. Harry L. Claud, Washington, D. C., an alumnus; Dean Harvey B. Haag of the college's school of medicine, and Wyndham B. Blanton Jr., president of the student body of the college. Dr. Sanger succeeded Dr. Stuart M. McGuire as president of the college on May 24, 1925.

WYOMING

Cancer Seminar.—A one day cancer seminar will be held May 21 in the Crystal Room of the Gladstone Hotel, Casper, for all members of the Wyoming state medical and dental societies. The meeting will convene at 9 a. m. with movies and the following speakers: Dr. George E. Cartwright, assistant professor of medicine at University of Utah Medical School, Salt Lake City; Drs. Henry Swan, II, associate professor of surgery; Henry Mason Morfit, assistant professor of oncology, and N. Paul Isbell, assistant professor in obstetrics and gynecology at the University of Colorado School of Medicine, Denver.

GENERAL

Life Insurance Medical Meeting.—The 1950 annual meeting of the Medical Section of the American Life Convention is to be held June 15-17 at the Greenbrier, White Sulphur Springs, W. Va. Dr. Ennion S. Williams, Richmond, medical director, Life Insurance Company of Virginia, is chairman of the section.

Dr. Phillipson Awarded Medal.—At the annual meeting of the American Social Hygiene Association in New York, Major Gen. Irving J. Phillipson, retired, was awarded the William Freeman Snow Award for Distinguished Service to Humanity. The award was established in 1937. Dr. Phillipson is an honorary vice president of the American Hygiene Society Clubs.

American Broncho-Esophagological Association.—This association will meet at the Mark Hopkins Hotel, San Francisco, May 25-26, under the presidency of Dr. LeRoy A. Schall, Boston. Papers being read by invitation include:

Arthur L. Bloomfield, San Francisco, Indications for Bronchoscopy and Esophagoscopy from the Standpoint of the Internist.
Walter B. Hoover, Boston, Obstruction of the Lower Esophagus—So-Called Cardiospasm.

International Pathology Congress.—The International Congress of Clinical Pathology will meet in London July 16-20, 1951. Members of the American Society of Clinical Pathologists will receive notice of the congress through a preliminary brochure to be sent to them. Other interested persons may receive this brochure by requesting it from the American Society of Clinical Pathologists, 1040-1232 West Michigan Street, Indianapolis 7, after July 15.

Meeting on Cleft Palate Rehabilitation.—The American Association for Cleft Palate Rehabilitation held its annual meeting in Chicago April 28-29 with headquarters at the LaSalle Hotel. The program included symposiums on Programming Cleft Palate Rehabilitation on Local, State and National

Levels, and Clinical Management of the Young Cleft Palate Child, clinical demonstrations and exhibits and technical and professional papers on maxillo-facial surgery, prosthodontia, speech pathology and therapy, psychology and pediatrics.

Border Health Program.—More than 200 delegates met April 12-14 in Chihuahua, Chihuahua, México, for the annual United States-Mexico Border Public Health Association meeting. Eighteen resolutions pertaining to disease control and sanitation measures were adopted at the sessions. Water studies, communicable disease control, venereal disease and the four cases of human plague in New Mexico last year were among the subjects discussed. Dr. Wilton L. Halverson, San Francisco, director of public health for California, was named president-elect of the association.

Genitourinary Surgeons Meeting.—The American Association of Genito-Urinary Surgeons will hold its annual meeting at the Hotel Hershey in Hershey, Pa., May 24-26, under the presidency of Dr. John A. C. Colston, Baltimore. Among the papers to be presented are "Present Concepts and Future Prospects of Precision Urology," "Ureteroenterostomy" and "The Steroids and Their Relationship to Medicine Problems." There will be two symposiums, one on retropubic prostatectomy and the other on hydronephrosis. The Keyes Memorial Medal will be presented to Dr. Herman L. Kretschmer, Chicago.

Society Elections.—At the eighteenth annual meeting of the Harvey Cushing Society held at Colorado Springs, Colo., April 15-17 the following officers were elected: Dr. W. Edward Chamberlain, Philadelphia, president; Dr. Harry Wilkins, Oklahoma City, vice president, and Dr. Louise C. Eisenhardt, New Haven, Conn., secretary-treasurer.——At a recent meeting of the Society of American Bacteriologists the following officers were selected: Barnett Cohen, Ph.D., Baltimore, president; Dr. Walter J. Nungester, Ann Arbor, Mich., vice president, and John E. Blair, Ph.D., Leonia, N. J., secretary-treasurer.

American Ophthalmological Society.—This society will hold its annual meeting at the Homestead, Hot Springs, Va., May 31 to June 2, under the presidency of Dr. Parker Heath, Boston. The invention of the ophthalmoscope 100 years ago by Dr. Herman Ludvig Ferdinand von Helmholtz will be commemorated by the presentation of three papers by Drs. Burton Chance, Philadelphia; Ruell A. Sloan, Washington, D. C., and Arthur J. Bedell, Albany, N. Y. There will be an exhibit of ophthalmoscopes, manuscripts, books and other material related to Helmholtz and his discovery, covering the period 1850-1865. Seventeen scientific papers will be presented.

Medical Librarians' Meeting.—The Medical Library Association will hold its 1950 convention June 19-22 at the Hotel Kenmore, Boston. The Boston Medical Library will be host. An address on "Medical Libraries and Librarianship in Great Britain" by Mr. William J. Bishop, librarian of the Wellcome Historical Medical Library, London, will be one of the outstanding lectures at the meeting. The "symposium on historical source material in medical libraries" and conducted visits to the libraries of Harvard, Massachusetts Institute of Technology, Massachusetts College of Pharmacy and the Massachusetts General Hospital will be of special interest to all medical and scientific librarians.

Inter-American Congress on Brucellosis.—The Third Inter-American Congress on Brucellosis will be held in Washington, D. C., November 6-10. The congress is being sponsored by the Pan American Sanitary Bureau, the Inter-American Committee on Brucellosis and the Committee on the Public Health Aspects of Brucellosis of the National Research Council. The latter committee on brucellosis of the National Research Council has been designated as the American Committee on Brucellosis and is responsible for the scientific program. Dr. Wesley W. Spink, professor of medicine at the University of Minnesota Medical School, Minneapolis, is chairman of the committee.

Meeting on Physical and Mental Rehabilitation.—The annual meeting of the Association for Physical and Mental Rehabilitation will be held at the Hotel Peabody, Memphis, Tenn., May 23-27, under the presidency of Mr. Raymond W. Swanson, Falls Church, Va. Physicians presenting papers at the general sessions include:

Alvin B. C. Knudson, Washington, D. C., Training for Rehabilitation.
Marcus J. Stewart, Memphis, Remedial Exercises and Rehabilitation in Back Injuries.
John E. Davis, Washington, D. C., Present Educational Challenge and Opportunity in Corrective Therapy.
Alan Gregg, New York, Role of Activity in Therapy.
Robert L. Bennett, Warm Springs, Ga., Functional Bracing.
Edward D. Greenwood, Topeka, Kan., Corrective Therapy as It Relates to the Neuropsychiatric Patient.
Ben L. Boynton, Houston, Texas, Medical Aspects of the Neurologic Patient.

Dr. Wolbach Receives Ricketts Medal.—The Howard Taylor Ricketts Medal was awarded Dr. S. Burt Wolbach, Harvard University professor emeritus of pathology, May 8 at the Albert Merrit Billings Hospital, Chicago. The Ricketts medal was endowed last year by Mrs. H. T. Ricketts. Dr. Ludvig Hektoen, professor emeritus of pathology of the University of Chicago, and Dr. Russell M. Wilder, head of the division of medicine at Mayo Clinics, were the first recipients. Dr. Wolbach made some of the earliest studies on the pathology of Rocky Mountain spotted fever and typhus. He is also known for his contributions to the knowledge of vitamin A and C deficiency diseases. In 1920 he served on the League of Red Cross Society's Research Committee on Typhus Fever to Poland. After the medal presentation, Dr. Wolbach spoke on rickettsial diseases.

Czechoslovakia Withdraws from WHO.—On April 21 Czechoslovakia notified the World Health Organization that "it no longer considers itself a member of the organization." Viliam Siroky, its Minister of Foreign Affairs, states that in the opinion of the government of Czechoslovakia, the World Health Organization does not fulfil the aims and principles of its constitution. The letter adds: "Fundamental objectives have remained a dead letter. Moreover, the World Health Organization is subject to influences which lead to discrimination against member states, among them Czechoslovakia."

The World Health Organization issued the following as background information: Services since 1947 have included assistance in tuberculosis and venereal disease campaigns in Czechoslovakia and in rehabilitation of an UNRRA penicillin plant, which is now operating. WHO has granted Czechoslovakia sixty-two fellowships permitting senior personnel to study abroad in countries including the U.S.S.R. The sum of $37,000 has been granted for fellowships in 1950. In addition to providing considerable quantities of medical literature and teaching equipment, the World Health Organization has assisted Czechoslovakia in the following undertakings: (1) A new state medical library and documentation center, including a microphotography laboratory, subscriptions to one hundred and seventy foreign periodicals and provision of large collections of textbooks; (2) a training center for anesthetists scheduled to open next month and to offer international courses; and (3) plans for a Swedish team scheduled to go to Czechoslovakia next June under WHO auspices to demonstrate new technic in the treatment of congenital heart diseases, including operations for "blue babies." The World Health Organization had agreed to provide the staff as well as complete equipment, which is now ready for shipment.

CANADA

Canadian Medical Association Meeting.—This association will hold its annual meeting in conjunction with the Nova Scotia Division at the Nova Scotian Hotel in Halifax June 19-23, under the presidency of Dr. Jack F. C. Anderson, Saskatoon. Guest speakers at the general sessions include:

George W. Thorn, Boston, The Osler Oration: Cortisone and Pituitary Adrenocorticotropic Hormone (ACTH)—Their Current Application to Medical Problems.
Richard Schatzki, Cambridge, Mass., Roentgenological Aspects of Peptic Ulcer.
John R. Lindsay, Chicago, Ménière's Syndrome: Diagnosis, Pathology and Treatment.
James A. Evans, Boston, Place of Splanchnicectomy in the Treatment of Hypertension.

Round tables and sectional meetings are scheduled. Several national special societies will hold meetings in conjunction with the association.

Marriages

FRANK MCDONALD PECK, to Miss Betty Louise Duncan, both of Huntington, W. Va., in Logan, March 28.

AUBREY HARRIS JONES, Fort Custer, Mich., to Mrs. Mary Julia Walls in Marshall, April 11.

GEORGE ROSTEL, Fargo, N. D., to Miss Ilse Edelmuth of New Haven, Conn., March 30.

WESLEY L. PETERSON JR., to Miss Joan M. Cook, both of Oak Park, Ill., February 10.

MARJORIE PIEHL, Madison, Wis., to DR. NORMAN HARRIS of San Francisco, March 3.

CAROL TOMLINSON to Mr. Frank W. Matthay, both of Janesville, Wis., February 14.

VOLNEY B. HYSLOP and Miss Carolyn Seely, both of Milwaukee, March 8.

Deaths

Joseph Grindon Sr., ● St. Louis; born in St. Louis Aug. 20, 1858; St. Louis Medical College, 1879, where he was lecturer on diseases of the skin from 1886 to 1895, professor of physiology, 1894-1895, and professor of dermatology from 1895 to 1900; professor of clinical dermatology and syphilology at Washington University School of Medicine from 1900 to 1912, when he became professor of dermatology at St. Louis University, serving until he was made professor emeritus in 1944; specialist certified by the American Board of Dermatology and Syphilology; member and past president of the American Dermatological Association; in 1899 president of the St. Louis Medical Society and St. Louis Dermatological Society from 1914 to 1924; vice president of the Missouri State Medical Association, 1931-1932; member of the American Academy of Dermatology and Syphilology, Chicago Dermatological Society, Dermatological Conference of the Mississippi Valley, Society for Investigative Dermatology, Archeology Institute of America, St. Louis Academy of Sciences and Missouri State Academy of Science; corresponding member of Société Francaise de Dermatologie et de Syphiligraphie; affiliated with St. John's, St. Mary's, Desloge and St. Louis City hospitals; president of the Medical Society of the City Hospital Alumni in 1897; author of "Diseases of the Skin" (1902); author of several chapters in the "American Text-Book of Genito-Urinary Diseases," "Syphilis and Diseases of the Skin" (1898) and "Handbook of Cutaneous Therapeutics" with Dr. W. A. Hardaway (1907); received an honorary Sc.D. degree from St. Louis University in 1943; died in St. Mary's Hospital April 1, aged 91, of arteriosclerotic heart disease.

Ferdinand Oscar Wolfgang Reinhard, Baltimore; born in Baltimore in 1886; Johns Hopkins University School of Medicine, Baltimore, 1914; in 1923 received the degree of master of public health from the Johns Hopkins School of Hygiene and Public Health; in 1915 was associated with the antityphus commission in Serbia; during World War I spent 18 months with the U. S. Army in France as first lieutenant in the medical corps; at one time attached to the American Red Cross Commission on Child Hygiene, stationed in Czechoslovakia, where he supervised a group of children's clinics; from 1923 to 1925 was district state health officer with the New York State Department of Health; served as health officer of Baltimore and as director of the bureau of venereal diseases of the Baltimore City Health Department; died April 2, aged 63, of muscular dystrophy.

Lester Taylor ● Cleveland; born in Verona, N. Y., Aug. 18, 1884; Johns Hopkins University School of Medicine, Baltimore, 1910; specialist certified by the American Board of Internal Medicine; served during World War I and was on draft board no. 50 in Shaker Heights, Ohio, during World War II; member of the American Public Health Association; past president, vice president in 1934, director from 1928 to 1937, secretary-treasurer from 1920 to 1922 and chairman of various committees of the Academy of Medicine of Cleveland; founder and president of the Cleveland Health Museum; director of medicine at St. Luke's Hospital; died suddenly while on a vacation at Pinehurst, N. C., April 11, aged 65, of coronary thrombosis.

Clarence W. Hopkins ● Elmhurst, Ill.; born in 1872; Northwestern University Medical School, Chicago, 1901; Associate Fellow of the American Medical Association; member of the American Association of Industrial Physicians and Surgeons and the Western Surgical Association; fellow of the American College of Surgeons; past president of the Association of Railway Chief Surgeons, American Association of Railway Surgeons and the Chicago Society of Industrial Medicine and Surgery; chief surgeon of the Chicago and Northwestern Railway from 1914 until his retirement in 1934; emeritus surgeon at St. Luke's Hospital in Chicago; died in Memorial Hospital March 17, aged 77, of diabetes mellitus.

Herman Bernard Sheffield ● New York; born in Germany Jan. 4, 1871; College of Physicians and Surgeons, Baltimore, 1895; for many years instructor in diseases of children at the New York Post Graduate Medical School and Hospital; fellow of the New York Academy of Medicine; at various times on the staffs of the Beth David, Jewish Memorial, Babies and Community hospitals; recipient of the Alvarenga Prize of the College of Physicians of Philadelphia in 1914 and the Merritt H. Cash Prize of the Medical Society of the State of New York in 1920; author of "Modern Diagnosis and Treatment of Diseases of Children" and "Backward Baby"; died March 17, aged 79, of arteriosclerosis.

● Indicates Fellow of the American Medical Association.

Charles Frederick Tenney ● Beverly Hills, Calif.; born in Bement, Ill., Jan. 4, 1876; University of Michigan Department of Medicine and Surgery, Ann Arbor, 1904; specialist certified by the American Board of Internal Medicine; at one time on the faculty of his alma mater; fellow and formerly member of the board of regents of the American College of Physicians; served as a trustee of the New York Academy of Medicine; member of the Medical Society of the State of New York; served on the staff of Flower and Fifth Avenue Hospitals in New York; died March 31, aged 74, of cerebral hemorrhage.

Daniel Clarence Steelsmith, Liscomb, Iowa; born in 1877; State University of Iowa College of Medicine, Iowa City, 1902; served as commissioner of health of Dubuque, deputy state commissioner of health and state commissioner of health; formerly health officer of the Halifax-Pittsylvania Health District in South Boston, Va.; served two terms, in the Iowa legislature as a representative from Osceola County; in 1947 was presented with an honorary degree of master of public health from Harvard University; died in Iowa Lutheran Hospital, Des Moines, March 12, aged 72, of coronary occlusion.

Fern Morton Cole ● Caldwell, Idaho; born in Durand, Ill., Jan. 18, 1876; Northwestern University Medical School, Chicago, 1898; president of the Idaho State Medical Association, 1939-1940; member of the state medical examining board of Idaho, 1926-1927; served during World War I; state director of medical procurement for the Selective Service system during World War II; lieutenant colonel in the Idaho National Guard; formerly member of the school board in Caldwell; past president of the Caldwell Chamber of Commerce; died April 2, aged 74, of heart disease.

Charles Jerome Shepard ● Columbus, Ohio; born in Nelsonville, Ohio, July 11, 1870; Bellevue Hospital Medical College, New York, 1894; emeritus clinical professor of medicine (dermatology) at Ohio State University College of Medicine; specialist certified by the American Board of Dermatology and Syphilology; member of the American Academy of Dermatology and Syphilology and the Columbus Academy of Medicine, of which he had been president in 1909; affiliated with Children's, Mount Carmel, St. Ann's Maternity and St. Francis hospitals; died March 8, aged 79, of cerebral hemorrhage.

Charles Franklin Anderson, Brentwood, Tenn.; Vanderbilt University School of Medicine, Nashville, 1907; formerly assistant professor of clinical urology at his alma mater; specialist certified by the American Board of Urology; past president of the Middle Tennessee Medical Association; member of the American Urological Association and the American Medical Association; served during World War I; fellow of the American College of Surgeons; formerly on the staffs of Nashville General and Protestant hospitals in Nashville; died March 1, aged 68, of heart disease.

Stephen Mitterling ● Philadelphia; born in Richfield, Pa., Feb. 18, 1879; Medico-Chirurgical College of Philadelphia, 1911; served as vice president of the Philadelphia County Medical Society and as president of the West Philadelphia Medical Association, of which he had been a member of the board of directors for many years; formerly on the faculty of his alma mater and the University of Pennsylvania School of Medicine; on the staff of Methodist Hospital; physician at the Presbyterian Home for Widows and Single Women; died March 19, aged 71, of leukemia.

Joseph Francis Bleak ● New York; New York University Medical College, New York, 1897; died recently, aged 73, of carcinoma of the stomach.

Henry Bernard Boyle, New York; Long Island College Hospital, Brooklyn, 1895; senior physician with bureau of industrial hygiene; died January 11, aged 75, of coronary disease.

Henry Clay Burson, Seattle; Toledo Medical College, 1896; served during World War I; died in Swedish Hospital March 1, aged 79.

Edmund Strudwick Burwell, Birmingham, Ala.; Harvard Medical School, Boston, 1920; served as associate clinician in the division of tuberculosis control, Georgia State Department of Health in Atlanta; died March 2, aged 63, probably of angina pectoris.

Lafayette Thomas Cox, Monon, Ind.; Medical College of Indiana, Indianapolis, 1892; served during World War I; formerly on the staffs of the Veterans Administration hospitals in Indianapolis and Milwaukee; at one time coroner of Ripley County and member of the state legislature; died in the Veterans Administration Hospital in Oteen, N. C., February 19, aged 81, of metastatic carcinoma of the right lung, brain and intestine.

Clarence Augustus De Puy, Oakland, Calif.; College of Physicians and Surgeons of San Francisco, 1905; member of the Pacific Coast Society of Obstetrics and Gynecology, of which he had been secretary; fellow of the American College of Surgeons; past president of the Alameda County Medical Society; served on the staffs of the Highland-Alameda County Hospital and Samuel Merritt Hospital, where he died March 12, aged 67, of acute coronary occlusion and hypertension.

Richard Dutton ● Wakefield, Mass.; Harvard Medical School, Boston, 1901; formerly treasurer of the Middlesex East District Medical Society; during World War I was secretary of the medical advisory board of draft district number 31, which comprised Wakefield and Melrose; for many years trustee and at one time chairman of the Beebe Memorial Library; on the honorary staff of the Melrose (Mass.) Hospital; died March 10, aged 74, of cerebral hemorrhage.

Frederick Ferdinand Ehlers, Oak Park, Ill.; Northwestern University Medical School, Chicago, 1905; died in West Suburban Hospital February 6, aged 79, of rheumatic fever, valvular heart disease and nodular hyperplasia of the prostate.

William H. Gaugh, Granada, Minn.; Ensworth Medical College, St. Joseph, Mo., 1884; died in the Fairmount (Minn.) Community Hospital recently, aged 90, of bronchopneumonia.

Clarence Alexandre Guillot, New York; Howard University College of Medicine, Washington, D. C., 1925; member of the American Medical Association; during World War I served overseas with the U. S. Army Intelligence Service as an interpreter; died at his home in Watertown February 11, aged 60.

Andrew Henry Hangarter ● Brooklyn; Columbia University College of Physicians and Surgeons, New York, 1908; fellow of the American College of Physicians; associated with St. Catherine's and Evangelical Deaconess hospitals; died March 10, aged 66.

Wilbur Frederick Helmus, Louisville, Ky.; University of Louisville School of Medicine, 1924; member of the American Medical Association; past president of the medical staff of Methodist Deaconess Hospital; on the staff of SS. Mary and Elizabeth Hospital; died in St. Joseph Infirmary March 2, aged 50, of cerebral hemorrhage.

Frank Albert Higgins, Newton, Mass.; Harvard Medical School, Boston, 1893; member of the American Medical Association; died January 3, aged 84, of myocardial infarction.

John Charles Kachline, Quakertown, Pa.; Medico-Chirurgical College of Philadelphia, 1901; member of the American Medical Association; died recently, aged 75.

John Gill Lilly, Aberdeen, Miss.; Tulane University of Louisiana School of Medicine, New Orleans, 1932; member of the American Medical Association; died February 24, aged 40, of injuries received in an automobile accident.

Thomas Edgar McCall, Phoenix, Ariz.; Kentucky School of Medicine, Louisville, 1893; served during World War I; died March 14, aged 78, of cerebral hemorrhage.

Joseph Arthur Macaulay, Boston; Tufts College Medical School, Boston, 1911; died January 27, aged 68, of cerebral thrombosis.

Rupert Kingsley McHenry, Houston, Texas; University of Texas School of Medicine, Galveston, 1917; specialist certified by the American Board of Radiology; member of the Radiological Society of North America and the American College of Radiology; served overseas during World War I; died recently, aged 59, of cerebral arteriosclerosis.

W. S. McMahon, Emerson, Ark. (licensed in Arkansas in 1903); died March 6, aged 93, of mitral stenosis.

Andrew D. Miller, Sullivan, Ill.; Missouri Medical College, St. Louis, 1891; member of the American Medical Association; died recently, aged 85, of cerebral hemorrhage and hypertension.

Frederick Benjamin Moore, Shabbona, Ill.; Keokuk (Iowa) Medical College, College of Physicians and Surgeons, 1902; member of the American Medical Association; for many years health officer; served on the staffs of St. Mary's and Glidden Memorial hospitals in DeKalb; died January 15, aged 75, of arteriosclerotic heart disease.

William Sherman Morris, Fullerton, Ky.; Kentucky School of Medicine, Louisville, 1906; died January 9, aged 83, of senility.

Chester Riland, Baltimore; Maryland Medical College, Baltimore, 1912; died March 11, aged 64, of coronary thrombosis and diabetes mellitus.

Sydney M. Robinson, Woodlawn, Va.; Medical College of Virginia, Richmond, 1886; member of the American Medical Association; died in Jefferson Hospital, Roanoke, recently, aged 89, of bronchopneumonia, gangrene of the foot and arteriosclerosis.

Erwin J. Rueck, Gifford, Ill.; Chicago College of Medicine and Surgery, 1913; member of the American Medical Association; died in Paxton (Ill.) Community Hospital recently, aged 62, of cardiovascular renal syndrome and cerebral hemorrhage.

Nathaniel Charles Schloessmann, Waukesha, Wis.; University of Wisconsin Medical School, Madison, 1937; member of the American Medical Association; on the staff of Waukesha Memorial Hospital; died March 14, aged 36, of coronary thrombosis.

Norman McLean Scott ● Lieutenant Colonel, U. S. Army, retired, East Orange, N. J.; born in Hyde Park, Mass., Jan. 17, 1869; Tufts College Medical School, Boston, 1911; served during World War I; entered the medical corps of the regular U. S. Army as a first lieutenant in 1917; retired March 31, 1938; fellow of the American College of Surgeons; medical director and executive vice president of the Medical-Surgical Plan of New Jersey in Newark; died March 30, aged 61, of heart disease.

Charles Moffett Simpson ● Temple, Texas; Harvard Medical School, Boston, 1919; fellow of the American College of Surgeons; member of the American Urological Association and the Texas Surgical Society; immediate past president of the Texas Urological Society and past president of the Bell County Medical Society; one of the senior surgeons at the Scott and White Clinic; associated with the Scott and White Hospital, where he died March 30, aged 54, of heart disease.

Charles Crawford Stroud, Natchitoches, La.; Tufts College Medical School, Boston, 1898; died recently, aged 79, of cerebral hemorrhage.

Ronald Curtis Vetter, Hamilton Field, Calif.; University of Kansas School of Medicine, Kansas City, Kan., 1940; served during World War II; major, U. S. Air Force Reserve; chief of medical service of the Army Air Force Base Hospital; died January 31, aged 35, of an accidental overdose of a barbiturate.

Stephen Sidney Watson, Moosic, Pa.; Jefferson Medical College of Philadelphia, 1894; member of the American Medical Association; served on the staff of the Taylor (Pa.) Hospital; died February 25, aged 82.

Walter William Wells ● Oklahoma City; born May 24, 1880; University of Oklahoma School of Medicine, Oklahoma City, 1910; emeritus professor of obstetrics at his alma mater; past president of the Oklahoma County Medical Society; a life member of the Central Association of Obstetricians and Gynecologists; fellow of the American College of Surgeons; served during World War I; on the staffs of St. Anthony, State University and Crippled Children's hospitals; died February 14, aged 69, of hemorrhage and duodenal ulcer.

Olof S. Werner ● St. Paul; Milwaukee Medical College, 1897; died March 24, aged 83, of cerebral arteriosclerosis and coronary insufficiency.

Lewis Allen Whipple, Peoria, Ill.; American College of Medicine and Surgery, Chicago, 1905; died March 21, aged 73, of acute myocardial infarction and diabetes mellitus.

Pearl Williams ● Providence, R. I.; College of Physicians and Surgeons, Baltimore, 1896; member of the consulting staff at Rhode Island Hospital; on the staff of the Charles V. Chapin Hospital; died in the Jane Brown Memorial Hospital March 13, aged 75, of carcinoma of the lung and empyema secondary to an operation.

Albert Jefferson Winebrake ● Scranton, Pa.; Jefferson Medical College of Philadelphia, 1899; past president of the Lackawanna County Medical Society; vice president and a member of the board of directors of the Lackawanna Chapter of the National Foundation for Infantile Paralysis; chief of gynecology and past president of St. Mary's and Mercy hospitals; died March 4, aged 75, of acute myocarditis and pneumonitis.

John Stubbs Yates, Paterson, N. J.; Medico-Chirurgical College of Philadelphia, 1898; member of the American Medical Association; past president of the Passaic County Medical Society; served on the staff of St. Joseph's Hospital; died March 18, aged 82, of bronchitis.

Foreign Letters

LONDON

(From a Regular Correspondent)

March 27, 1950.

Public Spending

In a leading article the London *Times* of March 14 tells its readers:

"Last Budget Day, Sir Stafford Cripps, (Chancellor of the Exchequer) reminded members of the House of Commons of their traditional duty as 'defenders of the taxpayer against the rapacity of the executive.' Today he will be one of the speakers defending the executive's request for an additional vote of $592 million to cover the Government spending of the financial year now ending. The Treasury last year imposed a virtual ban on supplementary estimates except when there was a major change of policy, and declared in a circular that 'it is not opportune to initiate measures involving further expenditure except in cases of peculiar need and urgency and such measures should not be put in hand without Cabinet authority.' As the executive is asking for an additional vote of $592 million it is only fitting that the Opposition should have tabled an amendment deploring the Chancellor's 'failure to enforce his own instructions to departments not to overspend so extensively their estimates for the current year.' . . .

"The issue posed is the chronic tendency of public expenditure to rise and pass out of control. . . . Two thirds of the additional money asked for is to meet the rising cost of the health service. It is not surprising that so novel an enterprise is proving difficult to manage, especially since it was launched before the remuneration of most of the professions concerned had been settled and without any attempt to ascertain the probable public demands on its various branches. It is highly disturbing that no one should seem to know whether the funds it is absorbing are reasonable or excessive, wisely or wastefully used. The cost is now so high that such information has become imperative."

It goes on to point out that the Ministry of Health has never provided a memorandum on its own estimates in order to have available statistical material on which a proper judgment of its requests for funds may be formed.

It continues: "It is intolerable that Parliament should still be asked to supply scores of millions of pounds for purposes no better defined than 'maintenance and running costs' of the hospitals, 'including specialist services,' and with no more evidence that the money is to be well spent on necessary objects than the assurance of one Minister in one speech. . . .

"In 1948-1949 the annual cost of the health service was about $25 a head of the population; in 1949-1950 it has risen to $34. Current spending by the hospitals has gone up from $15 to $19. Outlay on dentists is up from $2.50 to $4 a head, on chemists' supplies from $2 to $3, on eye services from $1.60 to $2. These increases, and those officially foreseen for the year now beginning, could not be defended except by a really convincing demonstration that the funds are not being wasted; and, even then, in the present state of the national economy, the need for retrenchment would remain. Some limit must be set—whether by stricter control of hospital budgets, however worthy all hospital expenditure may be, by the adjustment of any rewards in the service which may seem excessive, or by putting a price upon benefits, such as medicines, where demand runs beyond all calculation. . It is no longer possible to defend this great national venture simply by saying: 'Can we afford not to afford it?' The Minister of Health has not only to prove the worth of what he spends; he has also to pledge his contribution to cheaper government."

COSTS VERSUS TAXES

The *Times* also points out in another article, "The true permanent public cost of the service differs from the amount required in taxes on the National Health Service votes." These votes include certain nonrecurring expenditure involved in launching the service, such as the settling of former hospital debts. They omit a few charges, such as the administrative costs of the central departments responsible for the service. They were reduced in 1948-1949 by $104 million (approximately) and in 1949-1950 by $80 million (approximately), by unrepeatable windfalls in the form of superannuation funds taken over by the government from other agencies. They omit nearly one seventh of the cost, which falls on local rates and national insurance funds.

PUBLIC COST

With these adjustments and omitting nonrecurring charges, the approximate true public cost is summarized in the table, which shows the equivalent annual expenditure for the first nine months up to March 1949, together with the original and final estimates for 1949-1950.

Cost of National Health Service

	1948-1949, Annual Rate of Spending *	1949-1950 Original Estimates *	1949-1950 Final Estimates *
Hospitals:			
Capital outlay	44	55	76
Running costs, gross	720	720	820
Associated services, gross	24	40	44
	788	815	1,020
Less fees, etc.	68	13	80
Net public cost	720	802	940
General services:			
Family doctors	180	184	185
Chemists	96	86	140
Dentists	116	124	190
Eye service	80	60	100
Local services	112	124	124
Miscellaneous	44	52	52
Total all services	1,348	1,440	1,745
Less net gain on staff superannuation	140	126	70
Net cost of services	1,208	1,324	1,670
Borne on:			
Rates	80	60	60
Insurance Fund	144	166	166
Taxes	1,012	1,094	1,452

* Figures indicate millions of dollars.

The total public cost has risen from $1,208,000,000 in 1948-1949 (annual rate to $1,676,000,000 in 1949-1950. The government's forecast for 1950-1951 implies a further rise to at least $1,800,000,000. These figures provoke two main questions: Is the outlay justified by results? Why have the official estimates been so wide of the mark for two successive years? The divergence between original and final estimates was small in both years for local services (clinics, midwives, district nursing, ambulances and the like) and for the family doctor service. In the case of the general running costs of the hospitals (by far the largest single item) the estimate was 15 per cent short in 1948-1949 and 21 per cent short in 1949-1950. For the chemists' bill the original estimates were 28 and 41 per cent short, respectively, in the two years; for dentistry, 63 and 36 per cent, and for the eye service, 84 and 42 per cent.

HOSPITAL ESTIMATES

The first hospital estimates could not have been other than a wild guess. For the 12 months from April 1949, as the table shows, the government sought to restrict both capital and current hospital outlay to the same rate as in 1948-1949. But the estimates had to be prepared in the autumn of 1948, when the new authorities were only just beginning to explore the costs of their newly acquired hospitals. They could not be based on any real knowledge of hospital needs, and the initial decision to allow no expansion of the hospital budget was purely arbitrary.

DOCTORS AND DENTISTS

Still more striking is the contrast between the carefully regulated payments to the 20,000 family doctors in the service and the seemingly limitless payments to the 10,500 dentists. The latter have worked hard to earn their $194,400,000, but almost certainly no harder than the former for their $188,400,000. Even assuming that 50 per cent of the dentists' earnings go in expenses, but only 35 per cent of the doctors', it seems strange that the average doctor's net reward from the state should come to about $6,120 a year, while the dentist should receive—at least while the boom lasts—about $9,200.

Most difficult of all is the problem of the chemists' bill. Far from dropping, as the government had expected, this bill exceeded the government's own estimate for 1949-1950 by 75 per cent and was more than half as large again as the annual rate for 1948-1949. The average family doctor is now spending about $7,080 a year on prescriptions, or $3 a head of the population, compared with $2 a head annually in 1948-1949. There seems to be no means, which would not be resented by doctors as a restriction of their professional freedom, of preventing a further increase in this outlay—except, it must be emphasized to reintroduce charges for medicines. The discipline necessary to prevent a breakdown of the service is discernible neither in those patients who flock to their doctors with coughs, colds, scratches and other minor troubles, which they would have nursed unaided two years ago, nor in those doctors who sign chits to the chemist as the quickest way of getting rid of such patients.

ITALY

(From a Regular Correspondent)

FLORENCE, March 5, 1950.

Congress on Aerosol Therapy

The Congress on Aerosol Therapy was held in Viareggio, February 19-20, under the chairmanship of Professor Guassardo, director, Pediatric Clinic, University of Turin. Professor Guassardo discussed the present state of aerosol therapy and considered three principal problems which are under investigation at his school: the physical state of the drug introduced into the respiratory tract; the technic to be used, and control of the therapy. Until many aspects of the problem have been clarified, aerosol therapy will remain somewhat empiric. Professor Guassardo believes that the problem will be solved soon and that his school will contribute to the solution. With regard to the second problem, he reported that the transpulmonary passage of the drug in aerosol form ("diapneumotherapy") has been achieved by his school, constituting today a novelty in the therapeutic field. The administration of the drug by the transpulmonary route is carried out in suitable rooms; the results obtained by Professor Egidi and Dr. Gonirato of his clinic were satisfactory in the treatment of pertussis and epidemic cerebrospinal meningitis. An urgent problem was the dosage of the micronebulized therapeutic agents necessary to keep a constant density to assure a blood level of the drug which would cure different diseases. The problem was solved with Professor Guassardo's apparatus, which regulates the density of the spray. It is based on the principle of penetration of luminous rays through the nebulae, which, in relation to the density, sensitize a photoelectric cell connected with the aerosolizer. A great variety of apparatus has been designed for this purpose, but not all types possess the necessary requirements for correct treatment. This method of treatment is not without danger. It has been observed that some vasodilator substances administered to dogs in aerosol form bring about serious disturbances which result in the death of the animals. Consequently, physicians still must be cautious with medicated aerosols.

Professor Micheli, director of Santa Maria Nuova, the largest hospital in Florence, reported on 363 cases of bronchial asthma in which he observed favorable results with aerosol therapy.

TURKEY

(From a Regular Correspondent)

ANKARA, March 30, 1950.

Causes of Blindness in Turkey

Dr. Suat Seren (ophthalmologist) has made a study of government statistics in relation to the trachoma campaign undertaken by the Ministry of Health. At the second national medical congress in Ankara in 1927 trachoma was a subject for lively discussion and a campaign against it was recommended. In October of the same year the first census taken revealed that of Turkey's 13,648,270 inhabitants 15,322 men and 11,638 women (19.7 per 10,000) were blind. According to the second census, in 1935, of 16,158,018 inhabitants 27,232 men and 23,500 women (31 per 10,000) were blind. The results of the 1940 and 1945 census have not yet been published.

Incidence of Trachoma

Year	Simple Trachoma	Complicated Trachoma	Total Cases	Blind	Number of Cases per 10,000
1927.....	32,745	8,780	41,525	80	19
1935.....	70,894	41,527	111,921	265	22
1945.....	34,687	21,531	56,539	169	19

The report presented at the international congress of ophthalmology in Amsterdam in 1929 shows that in Palestine 166.7, in Egypt 19.7, in Persia 24.9, in North Africa 20.7, in Algeria 18.8, in Japan 17.2 and in Russia 16.9 per 10,000 persons were blind. The 1934 census in Bulgaria indicates that of the 6 million inhabitants 4,600 persons (7.7 per 10,000) are blind. According to the 1930 census in Rumania, of the 18 million inhabitants there were 9,328 (5.2 per 10,000) blind. The 1930 census of France, with a population of 41 million, indicated that there were 32,930 (8 per 10,000) blind. Before World War II Great Britain had 46,822, Spain 38,000 and the United States 36,489 blind.

The explanation for the increase in blindness which the second census, in 1935, revealed probably is, that in the eastern provinces, where the rate of blindness is highest, the census takers failed to include outlying communities and that severe trachoma, in spite of medical care, was not curable and later resulted in blindness. Also, in the initial stage of the campaign which was begun in 1928, because of lack of trained personnel and equipment, all rural communities could not be reached. When personnel had been trained, ambulant units were set up and in due time the organization of the campaign was well under way. Trachoma is endemic in the provinces of Gaziantep, Urfa, Mardin, Siirt, Diyarbakir and Malatya. During World War I it became epidemic as the result of troop movements through Syria, Transjordan and Arabia and the influx of refugees from these regions. The Ministry of Health gives the statistics from the trachoma campaign units as shown in the table.

In 1949 the Ministry of Health reinvestigated trachoma in the two urban communities where the incidence of trachoma was highest. Of the 41,000 inhabitants of the city of Diyarbakir, 34,496 persons were examined and of these 81 were totally blind, or 23.5 per 10,000. In the 1927 census the rate was 36 per 10,000. In Siirt, with a population of 16,230, of the 9,698 persons examined there were 14 blind, or 14.4 per 10,000. In the 1927 census there were 45 blind per 10,000. These figures indicate that the campaign, which in these regions began in 1931, has shown good results. In other urban communities similarly satisfactory results are expected. In rural communities, where the campaign began much later and where conditions affecting public health are lowest, such satisfactory results are not expected.

Blindness in Turkey is primarily due to trachoma; accidents are rarely the cause of blindness; neither is smallpox, because of compulsory vaccination. Because of the good results of the venereal disease control work of the past 25 years, congenital blindness due to syphilis or gonorrhea is rare.

Excellent results are being obtained with sulfonamides and antibiotics; they shorten the treatment and relieve pain. Besides preventive measures, the raising of the standard of living in the backward rural communities is an important factor in stamping out trachoma, thus reducing the chief cause of blindness.

Pellagra in Turkey

Pellagra has been known to occur for 30 years in the rural communities of western Anatolia. It also occurs elsewhere but is found chiefly in eastern provinces, where the diet of the rural population is restricted and notably deficient in vitamins. Dr. Kemal Turgut of the department of dermatology of the Aydin General Hospital reported on 20 patients with pellagra. Investigating the varying incidence of pellagra in the province of Aydin, where, because of the fertility of the soil the standard of living among the rural population is comparatively high, Dr. Turgut concludes that conditions arising from the state of preparedness of the war years unfavorably affected the dietary habits of the people and that the exceptional heat and dryness during 1945 and 1946 were also responsible in part. Of the 20 pellagra patients of the 6,300 patients examined during that period in the outpatient department of the Aydin General Hospital, 11 were men, 9 were women, 6 patients were 6 to 15 years of age, 9 were 16 to 45 and 5 were more than 46. The patients chief complaints were discoloration and reddening of the skin, severe itching often preventing sleep, indigestion, diarrhea, anemia and weakness. Most patients suffered from skin lesions on the hands, arms and legs. In several patients pellagra was associated with anemia and malaria tropica, in several with digestive and intestinal disturbances and in 1 patient with pyoderma. The diet of these patients consisted of rye bread, millet and corn, occasionally soup made of pounded wheat and yoghurt made of skimmed milk. Fruit was eaten only rarely, and there was no meat and fish in the diet. The action of strong sunlight, to which the patients working in the fields had been exposed, caused erythema, hyperpigmentation, papules and lamellar desquamation, mainly of exposed surfaces. Examination of the blood revealed the hemoglobin level to be 50 to 60 per cent of normal, 3,000,000 to 3,900,000 red blood cells, 6,000 to 9,000 white blood cells and an insignificant differential leukocyte count. The sedimentation rate was 25 mm. after half an hour, 50 mm. after one hour and 105 mm. after two hours. At the hospital, where a well balanced varied diet, including whole wheat bread, meat, fresh vegetables, butter, cheese and eggs, was used and medication included 6 to 15 Gm. dried yeast, injections of liver and nicotinic acid, recovery occurred in 6 to 16 days except in a 9 year old child, who because of intestinal disorders remained in the hospital 37 days.

The Menderes River traversing the Aydin plain gives it a semitropical climate; there is no spring; the change from cold to hot is sudden; it is Anatolia's hottest region. According to meteorologic observations Izmir and Aydin have an average of 3,054 hours of sunlight per year, Mugla has 3,000 hours, Diyarbakir 2,905, Afyonkarahisar 2,567, Kirşehir 2,528, Eskişehir 2,524, Ankara 2,510, Istanbul 2,378 and Edirne 2,261. During the summer the temperature in the Aydin plain is often 41 C. in the shade and may remain at that level for days. However, among the urban communities of the same region the diet is well balanced and pellagra does not exist, which points to dietary origin. Deficiency diseases are not a public health problem in Turkey, but, unless there is economic and social improvement of the people, health education stressing the importance of proper nutrition and vitamins cannot effect the prevention and eradication of such diseases.

Electroshock Treatment

Ord. Prof. Fahreddin Kerim Gökay of the Istanbul University Mental and Neurological Hospital has published his experience with electroshock treatment of almost 1,000 hospital and 130 private patients. The patients were given a careful cardiovascular and lung examination, and the absence of tumor of the brain was determined. Patients with cardiac disease, pulmonary tuberculosis, tuberculosis of the vertebrae, osteitis deformans, osteitis fibrosa cystica, broken bones or a dislocated joint and menstruating or pregnant women were not given the treatment. Maniacal patients were given the treatment daily and others three times a week.

Prof. F. K. Gökay is of the opinion that the treatment is not beneficial unless a proper crisis is effected; on the contrary, it produces a state of fear in the patient and, when convulsions are involved, increases depression and anxiety. The patients who responded well to the treatment were those suffering from shock psychosis, melancholia, attacks of schizophrenic schizothemia, manic depressive psychosis and severe hysteria. In primary schizophrenia the treatment was successful in 1 out of every 3 cases. Results were unsatisfactory in hebephrenia, catatonia, paranoia, dementia precox, psychasthenia, obsession and paraphrenia. In these cases better results have been obtained with uninterrupted insulin (hypoglycemia) shock treatment.

In all chronic cases results have been unsatisfactory. There have been no accidents except for an occasional dislocation of the jaw, which was soon put into place without interruption of treatment. At the slightest indication that respiration might cease, artificial respiration was applied. Three to seven sessions were employed; in most cases four or five were sufficient. There have been few relapses. Attention was given to psychologic after-treatment, to allergy, the avoidance of strain on the liver and the prevention of anemia or hematomyelia as a result of a vertebral fracture. Occasionally amnesia occurred after treatment.

Penicillin in Syphilis Therapy

Dr. Cevad Sargin, chief of the Istanbul Cerrahpasha City Hospital venereal disease department, reported on penicillin therapy in 23 syphilitic patients. Penicillin was not available in Turkey until after the war; because of its high price it was used only for serious acute infections and its use was licensed by the Ministry of Health. Since it has became easily available at less cost it has also been used for the treatment of syphilis.

Correspondence

ADVANCES IN OBSTETRICS

To the Editor:—The article in THE JOURNAL titled "Evaluation of Present Day Trends in Obstetrics" by Reid and Cohen (149: 615 [March 4] 1950) presented the viewpoint of the institutional physician. While their disproof of false theories, sometimes advanced in support of "normal childbirth," are timely and well taken, their prejudice against normal and natural processes is as unfounded as the statements they disprove.

Physicians practicing in large city clinics surrounded by trained and skilled assistants and professional anesthetists, with the advantage of strictly controlled routines, find certain highly scientific procedures successful. The physician doing his work in the small general hospital, where the attending physician, one nurse and the patient must do the job, gets as good results without the fanfare.

For a quarter of a century we have observed the highly trained new physician, schooled in caudals, spinals (or in earlier days overwhelming doses of barbituates) begin their work in the fashion in which they were trained. They had at that period sufficient time to supervise the caudal or other technic. As they became more active, with less time to spare, and as they observed the success of the conservative methods of older men, they soon discarded these useful technics. Simple education of the patient as to the process of labor, what to expect, what to do; sincere interest and proper care of the patient during her prenatal period; calling on the patient when admitted to the hospital to reassure her (not leaving this to the resident or intern), and the expression of encouragement in later visits during the first stage develop what DeLee has named the best and most harmless of all analgesia or anesthesia—"confidence in her physician."

Any physician, or group of physicians, can inject his personality into inquiries and so obtain almost any desired answer to prove a point. Dr. X convinces his patients that after preliminary barbital-scopolamine preparation, spinal and forceps (not always low) is the ideal manner of childbirth. The physician in the smaller community can just as often complete the same procedure with equal anatomic and personal success with the administration of 200 mg. of meperidine hydrochloride, a local in the perineum and low forceps. I have used the latter procedure in patients that have had the former used with previous deliveries. I have inquired on the second day post partem which manner they desired in future deliveries and have yet to hear a request for the "absent treatment."

The physician out in the field is not likely to attempt to gather statistics. He is, as a rule, too busy and has no resident to serve him in this capacity. He does, however, observe his patient not only the seven or eight day period of hospitalization but often is in close contact with mother and baby for a year or more. Many psychologic reactions are evident in this period to such a physician that are never seen or heard of by the doctor working in a large maternity center. It is for this reason that the institutional physician is so unqualified to discuss "rooming-in." Ask the pediatrician of the smaller community; ask the family doctor; ask the patient in the hospital where "rooming-in" is accepted by the management and the staff.

All will grant the physician in the large teaching center the right and privilege of conducting his work in the manner he finds most successful. Great credit should be given to the research work done by these men. Advances of great value have resulted. There is a resentment, however, by physicians on the outside—and it is this group that delivers 98 per cent of the babies—when told that the quality of their work is inferior and is still part of the dark ages, because they do not utilize methods that are more complicated and carry with them a tremendous risk when used by the inexperienced or the physician not in the gold-plated maternity center. The over-all improvement in the infant and maternal death rates is due to the judicious methods and conservative efforts of the obstetrician and general practitioner outside of the large medical centers. Let us encourage him to continue to allow nature to take her course.

JAMES D. STARK, M.D., Erie, Pa.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Drunkenness: Admissibility in Evidence of Chemical Tests for Intoxication.—The plaintiff sued the state for death and injuries sustained by her deceased husband as the result of an automobile accident wherein it was alleged that the state negligently failed to properly designate a highway termination. The case was heard by the court of claims of New York.

In addition to evidence indicating that the deceased had been driving carelessly and at an excessive rate of speed, there was further evidence that he was intoxicated. He had admittedly had some drinking during the day, and an analysis of a urine sample taken from him within an hour after the accident revealed an alcohol concentration of 0.305 per cent, which is the equivalent of an alcohol concentration in the blood of 0.235 per cent. This, according to recognized scientific standards, indicates intoxication.

The plaintiff objected strenuously to the admission of any evidence with respect to the analysis of the urine and the conclusions to be drawn therefrom. The first contention is that such evidence would be admissible only under provisions of section 70, subdivision 5 of the Vehicle Traffic Law, which so far as pertinent reads as follows: "Upon the trial of any action or proceeding arising out of acts alleged to have been committed by any person arrested for operating a motor vehicle or motor cycle while in an intoxicated condition, the court may admit evidence of the amount of alcohol in the defendant's blood taken within two hours of the time of the arrest, as shown by a medical or chemical analysis of his breath, blood, urine or saliva. For the purposes of this section (*a*) evidence that there was, at the time, five-hundredths of one per centum, or less, by weight of alcohol in his blood, is prima facie evidence that the defendant was not in an intoxicated condition; (*b*) evidence that there was, at the time, more than five-hundredths of one per centum and less than fifteen-hundredths of one per centum by weight of alcohol in his blood is relevant evidence, but it is not to be given prima facie effect in indicating whether or not the defendant was in an intoxicated condition; (*c*) evidence that there was, at the time, fifteen-hundredths of one per centum, or more, by weight of alcohol in his blood, may be admitted as prima facie evidence that the defendant was in an intoxicated condition."

We agree with the plaintiff that this section is inapplicable to the present case, since there is no indication that the deceased was ever arrested for operating a motor vehicle while in an intoxicated condition. We do not agree, however, that such evidence is, therefore, completely barred. While we have found no New York decision directly in point, we have examined carefully the annotation on the subject of scientific tests for intoxication which appears in 159 American Law Reports Ann., page 209, and have concluded that evidence of such a test and expert opinions with respect to the interpretation thereof may properly be admitted in civil actions. It is not, however, conclusive on the issue of intoxication or, at least, is not conclusive on the effect which the degree of intoxication found may have had in the particular situation. The state's expert, the director

of the scientific laboratory of the New York State police, could and did state that the deceased was intoxicated according to established scientific standards based on urinalysis but, not having actually seen the deceased at the time, could not and did not state that such intoxication had rendered him unable or unfit to drive a car. Therefore, while we surmise that his condition of intoxication probably had an effect on his manner of operating the automobile and on his attention to road conditions and warnings, we are not able to find and we do not find that such condition was necessarily the cause of the accident.

The plaintiff also contends that, since the urine specimen was taken from the deceased while he was in an unconscious condition, the admission of any testimony with respect thereto would be a violation of his constitutional rights against self incrimination and against illegal searches and seizures. We do not commend the method by which the specimen was obtained, said the court, but, under the rule of *People v. Defore, 242 N. Y. 13, 150 N. E. 585,* it is established that in this state evidence, although illegally secured, may nevertheless be admitted without violation of such constitutional rights. We therefore deny the plaintiff's motions to strike out any or all of the evidence based on the urinalysis. Accordingly the claim of the deceased for a recovery against the state was denied.—*Hicks v. State, 93 N. Y. S. (2d) 560 (1949).*

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

NATIONAL BOARD OF MEDICAL EXAMINERS

National Board of Medical Examiners: *Parts I and II.* Various locations, June 19-21. Final date for accepting applications is May 19. *Part III.* Twenty-nine centers, June 6-29. Registration closes on May 6. Exec. Sec., Mr. E. S. Elwood, 225 S. 15th Street, Philadelphia.

EXAMINING BOARDS IN SPECIALTIES

American Board of Anesthesiology: *Written.* Various locations, July 21. *Oral.* Chicago, Oct. 8-11. Sec., Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22.

American Board of Internal Medicine: *Oral.* San Francisco, June 21-23. The oral examinations in the subspecialties will be held at the same time and places. *Written.* Oct. 16. Final date for acceptance of applications is May 1. Asst. Sec., Dr. William A. Werrell, 1 West Main Street, Madison 3, Wis.

American Board of Neurological Surgery: *Oral.* Chicago, June 3. Applications no longer accepted. Chicago, Oct. 1950. Final date for filing applications is April 30. Sec., Dr. W. J. German, 789 Howard Ave., New Haven, Conn.

American Board of Obstetrics and Gynecology, Inc. *Oral Part II.* Atlantic City, May 21-27. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh.

American Board of Ophthalmology: *Written.* Various Centers, January 1951. Final date for filing applications is July 1, 1950. *Practical.* Boston, May 22-26; Chicago, Oct. 2-6; West Coast, Jan. 1951. Sec., Dr. Edwin B. Dunphy, 56 Ivie Road, Cape Cottage, Maine.

American Board of Otolaryngology: *Oral.* San Francisco, May. Chicago, October. Sec., Dr. Dean M. Lierle, University Hospital, Iowa City.

American Board of Pediatrics: San Francisco, June 30-July 2. Exec. Sec., Dr. John McK. Mitchell, 6 Cushman Road, Rosemont, Pa.

American Board of Physical Medicine and Rehabilitation: *Oral and Written.* Boston, Aug. 26-27. Final date for filing applications is April 1. Sec., Dr. Robert L. Bennett, 30 N. Michigan Ave., Chicago.

American Board of Plastic Surgery: *Oral.* May-June. Sec., Dr. Louis T. Byars, 4647 Pershing Avenue, St. Louis, Mo.

American Board of Preventive Medicine and Public Health: *Written.* Portland, Ore., May 28. *Oral.* Portland, Ore., May 29. Sec., Dr. E. L. Stebbins, 615 N. Wolfe St., Baltimore 5, Md.

American Board of Psychiatry and Neurology: San Francisco, June 23-24. Applications no longer accepted. Next examination, December 1950. Final date for filing applications is Sept. 1.

American Board of Radiology: *Oral.* Chicago, week of June 18. Sec., Dr. B. R. Kirklin, 102-110 Second Ave., S.W., Rochester, Minn.

American Board of Surgery: *Written.* Various centers, Oct. 25. Final date for filing applications is July 1. Sec., Dr. J. Stewart Rodman, 225 South 15th Street, Philadelphia.

American Board of Urology: Chicago, Feb. 10-14, 1951. Final date for filing applications is Sept. 1, 1950. Sec., Dr. Harry Culver, 7935 Sunnyside Road, Minneapolis 21.

BOARDS OF MEDICAL EXAMINERS

Alabama: *Examination.* Montgomery, June 27-29. Sec., Dr. D. G. Gill, 519 Dexter Avenue, Montgomery.

Alaska: * Juneau, Sept. 5. Special examinations given on application. Sec., Dr. W. M. Whitehead, Box 140, Juneau.

Arkansas: * *Examination.* Little Rock, June 8-9. Sec., Dr. Joe Verser, Harrisburg. *Homeopathic.* Little Rock, June and November. Sec., Dr. Carl S. Bungart, 105 N. 14th St., Fort Smith. *Eclectic.* Little Rock, June 8-9. Sec., Dr. Clarence H. Young, 1415 Main Street, Little Rock.

California: *Examination, Written.* San Francisco, June 19-22; Los Angeles, Aug. 21-24; Sacramento, Oct. 16-19. *Examination, Oral and Clinical for Foreign Medical School Graduates.* San Francisco, June 18; Los Angeles, Aug. 20; San Francisco, Nov. 12. *Reciprocity, Oral Examination.* San Francisco, June 17; Los Angeles, Aug. 19; San Francisco, Nov. 11. Sec., Dr. Frederick N. Scatena, 1020 N Street, Sacramento 14.

Connecticut: * *Examination.* Hartford, July 11-12. Sec. to the Board, Dr. Creighton Barker, 160 St. Ronan St., New Haven. *Homeopathic.* Derby, July 11-12. Sec., Dr. Donald A. Davis, 38 Elizabeth St., Derby.

Delaware: *Examination.* Dover, July 11-13. *Reciprocity.* Dover, July 20. Sec., Dr. J. S. McDaniel, 229 S. State St., Dover.

Florida: * Jacksonville, June 25-27. Sec. Dr. Frank D. Gray, 12 N. Rosalind Avenue, Orlando.

Georgia: *Examination.* Atlanta and Augusta, June. *Endorsement.* Atlanta, June. Sec., Mr. R. C. Coleman, 111 State Capitol, Atlanta 3.

Hawaii: *Examination.* Honolulu July 10-13. Sec., Dr. I. L. Tilden, 1020 Kapiolani St., Honolulu.

Idaho: Boise, July 10. Sec., Mr. Armand L. Bird, 305 Sun Bldg., Boise.

Indiana: *Examination.* Indianapolis, June. Sec., Dr. Paul R. Tindall, 1138 K. of P. Bldg., Indianapolis.

Iowa: * *Examination.* Iowa City, June 12-14. Sec., Dr. M. A. Royal, 506 Fleming Building, Des Moines 19.

Kansas: Kansas City, June 7-8. Sec., Dr. J. F. Hassig, 905 N. 7th Street, Kansas City.

Kentucky: *Examination.* Louisville, June 14-16. Sec., Dr. Bruce Underwood, 620 S. 3rd Street, Louisville 2.

Louisiana: New Orleans, June 8-10. Sec., Dr. Roy B. Harrison, 1507 Hibernia Bank Bldg., New Orleans.

Maine: *Examination and Reciprocity.* Augusta, July 11-12. Sec., Dr. Adam P. Leighton, 192 State St., Portland.

Maryland: *Examination.* Baltimore, June 20-23. Sec. Dr. Lewis P. Gundry, 1215 Cathedral Street, Baltimore 1. *Homeopathic.* Baltimore, June 20-21. Sec., Dr. John A. Evans, 612 W. 40th St., Baltimore.

Massachusetts: *Examination.* Boston, July 11-14. Sec., Dr. George L. Schadt, Room 37, State House, Boston 33.

Michigan: * *Examination.* Ann Arbor and Detroit, June 12-14. Sec., Dr. J. Earl McIntyre, 100 W. Allegan St., Lansing 8.

Mississippi: Jackson, June 20-21. Asst. Sec., Dr. R. N. Whitfield, Jackson 113.

Missouri: Examination. St. Louis, May 31-June 2 and June 7-9. Exec. Sec., Mr. John A. Hailey, Box 4, State Capitol Building, Jefferson City.

Nebraska: * *Examination.* Omaha, June 5-7. Director, Bureau of Examining Boards, Mr. Oscar F. Humble, 1009 State Capitol Building, Lincoln 9.

New Hampshire: Concord, Sept. 13. Sec., Dr. John Samuel Wheeler, 107 State House, Concord.

New Jersey: *Examination.* Trenton, June 20-23. Sec., Dr. E. S. Hallinger, 28 West State Street, Trenton.

New York: *Examination.* Albany, Buffalo, New York and Syracuse, June 27-30. Sec., Dr. Jacob L. Loehner, Jr., 23 S. Pearl St., Albany.

North Carolina: *Written.* Raleigh, June 19-22. *Endorsement.* Raleigh, June 19. Sec., Dr. Ivan Procter, 226 Hillsboro Street, Raleigh.

North Dakota: *Examination.* Grand Forks, July 5-7. *Reciprocity.* Grand Forks, July 8. Sec., Dr. C. J. Glaspel, Grafton.

Ohio: *Examination.* Columbus, June 14-17. Sec., Dr. H. M. Platter, 21 W. Broad St., Columbus 15.

Oklahoma: * *Examination.* Oklahoma City, June 7-8. Sec., Dr. Clinton Gallaher, 813 Braniff Building, Oklahoma City.

Pennsylvania: *Examination.* Philadelphia and Pittsburgh, July 11-14. Act. Sec., Mrs. Marguerite G. Steiner, 351 Education Bldg., Harrisburg.

Puerto Rico: *Examination.* Santurce, Sept. 5. Sec., Mr. Luis Cueto Coll, Box 3717, Santurce.

South Carolina: *Examination.* Columbia, June 26-29. *Reciprocity.* First Monday of each month. Sec., Dr. N. B. Heyward, 1329 Blanding Street, Columbia.

South Dakota: * Sioux Falls, July 18-19. Sec., Dr. C. E. Sherwood, 300 First National Bank Bldg., Sioux Falls.

Texas: * *Examination.* Austin, June 19-21. Sec., Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth 2.

Utah: *Examination.* Salt Lake City, June. Dir., Dr. Frank E. Loos, 324 State Capitol Building, Salt Lake City.

Vermont: *Examination.* Burlington, June. Sec., Dr. F. J. Lawliss, Richford.

Virginia: *Examination.* Richmond, June 23-24. *Endorsement.* Richmond, June 22. Sec., Dr. K. D. Graves, 631 First St., S.W., Roanoke.

West Virginia: *Examination.* Charleston, July 10-12. Sec., Dr. N. H. Dyer, Capitol Bldg., Charleston.

Wisconsin: * Milwaukee, July 11-13. Sec., Dr. C. A. Dawson, River Falls.

Wyoming: *Examination.* Cheyenne, June 5. Sec., Dr. Franklin D. Yoder, Capitol Bldg., Cheyenne.

---

* Basic Science Certificate required.

BOARDS OF EXAMINERS IN THE BASIC SCIENCES

Alaska: *Examination.* Juneau, last week in August. Sec., Dr. C. Earl Albrecht, Box 1931, Juneau.

Arizona: *Examination.* Tucson, June 20. Sec., Mr. Francis A. Roy, Science Hall, University of Arizona, Tucson.

Connecticut. *Examination.* New Haven, June 10. Exec. Asst., State Board of Healing Arts, M. G. Reynolds, 110 Whitney Ave., New Haven.

Florida: *Examination.* Gainesville, June 3. Sec., Mr. M. W. Emmel, University of Florida, Gainesville.

Oregon: Portland, June 17. Sec., Dr. C. D. Byrne, University of Oregon, Eugene.

South Dakota: Vermillion, June 2-3. Sec., Dr. Gregg M. Evans, 310 E. 15th Street, Yankton.

Wisconsin: Milwaukee, June 3. Madison, Sept. 30. Sec., Mr. W. H. Barber, Scott and Watson Sts., Ripon.

Current Medical Literature

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in Continental United States and Canada for a period of five days. Three journals may be borrowed at a time. Periodicals are available from 1939 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

American Heart Journal, St. Louis

38:801-972 (Dec.) 1949

*Atrial Septal Defects. Study of Intracardiac Shunts, Ventricular Outputs, and Pulmonary Pressure Gradient. J. B. Hickam.—p. 801.
*Cardiac Dysfunction in Hyperthyroidism: Study of 810 Cases. D. Griswold and J. H. Keating Jr.—p. 813.
*Conus Artery: Third Coronary Artery. M. J. Schlesinger, P. M. Zoll and S. Wessler.—p. 823.
VI. Correlation of Electrocardiographic and Pathologic Findings in Posterolateral Infarction. G. B. Myers, H. A. Klein and T. Hiratzka. —p. 837.
Pulmonary Arterial Pressure. S. Rodbard, F. Brown and L. N. Katz. —p. 863.
Plasma Hexosamine Levels in Acute Rheumatic Fever. C. Rosenberg and B. Schloss.—p. 872.
Improved Method for Visualizing Coronary Arteries at Post Mortem. R. W. Scott, A. F. Young, H. A. Zimmerman and I. Krch.—p. 881.
Necrosis in Coronary Arteries of Newborn Infants. P. Gruenwald. —p. 889.

Atrial Septal Defect.—Hickam shows that patients with atrial septal defect provide an unusual opportunity for the study of certain problems connected with the regulation of cardiac output and the hemodynamics of the pulmonary circulation. He reports observations on 4 patients with atrial septal defect in whom it was possible to catheterize pulmonary veins and to estimate the separate ventricular outputs and intracardiac shunts and to determine the pulmonary pressure gradient and pulmonary vascular resistance. It was found that the proportional and absolute values of the intracardiac shunts can change spontaneously and in response to exercise. Changes in right and left ventricular outputs may not parallel each other during exercise and may even be opposite in direction. Changes in right ventricular output may be opposite in direction to changes in right atrial pressure. The pulmonary pressure gradient and right ventricular output were measured in 4 subjects at rest and in 2 during exercise. In 2 subjects with apparently normal pulmonary vessels the pulmonary vascular resistance was extremely low (0.6 to 0.9 mm. mercury per liter per minute). These subjects maintained a pulmonary blood flow of 15 to 20 liters per minute under pressure gradients of 12 to 13 mm. of mercury. One patient with pulmonary vascular engorgement had a pulmonary flow of 15 liters per minute with a pressure gradient of only 4.0 mm. of mercury. During exercise pulmonary hypertension developed in the patient with pulmonary vascular engorgement. This was primarily due to an increase in left atrial pressure, but there was also a significant rise in the pressure gradient and the pulmonary vascular resistance.

Cardiac Dysfunction in Hyperthyroidism.—Griswold and Keating review a series of 810 patients with hyperthyroidism admitted to the ward and private services of St. Luke's Hospital, New York, between 1927 and 1947. Patients with either persistent auricular fibrillation or signs of cardiac insufficiency on admission were classified as thyrocardiacs, whether or not there was associated organic cardiovascular disease. Those with hyperthyroidism who did not meet these standards were classified as nonthyrocardiacs and served as controls. Paroxysmal tachycardia, paroxysmal fibrillation and extrasystoles are the most common cardiac manifestations of hyperthyroidism, but accurate evaluation of these arrhythmias in this survey was not feasible. Of the 810 cases, 103 (12.5 per cent) were thyrocardiacs. The 72 thyrocardiacs surgically treated had an operative mortality of 6.9 per cent. Six thyrocardiacs died as a result of cardiovascular complications before definitive treatment could be instituted. There were 623 nonthyrocardiacs operated on, with a mortality of 2.2 per cent, which for the past ten years has been 1.4 per cent. Although hyperthyroidism is much less frequent in men than in women, the men are more likely to have cardiovascular complications. Among the 103 thyrocardiac patients there were 44 per cent with toxic nodular glands and 56 per cent with hyperplastic glands. In comparison, among the controls there were 34 per cent with toxic nodular glands and 66 per cent with hyperplastic glands. Of 98 thyrocardiac patients, 52 per cent had associated cardiovascular disease, compared with 13 per cent in the 657 controls. Despite the fact that the thyrocardiac subjects were ten years older, on an average, than the controls, the incidence of organic heart disease among them is higher than would be expected in their age group. Attention should be called to the fact that as many as 48 per cent thyrocardiac patients had no demonstrable organic heart disease. In the thyrocardiac group there were 11 per cent who complained of angina, whereas in the controls there were only 3.5 per cent. The severity of hyperthyroidism does not cause a thyrocardiac state. Three patients in failure showed no sign of hypermetabolism. The postoperative alleviation of the apparent myocardial disease proves the validity of this concept.

The Conus Artery: A Third Coronary Artery.—According to Schlesinger and his associates the portion of the right ventricle in the human heart known as the area of the conus arteriosus often has a unique arterial blood supply through a vessel which they call the "conus artery." The human hearts on which the authors made their studies were prepared by a method of injection plus dissection, which discloses the narrowings, occlusions and anastomoses in the visualized coronary arteries. The conus artery attracted attention in routine injections by this method, when the injection mass occasionally filled the conus artery by anastomotic pathways and leaked through its mouth into the aorta. In 50 per cent of 651 hearts the conus arteriosus was supplied by an artery, the conus artery, which is not a branch of the right or left coronary artery but arises by a separate ostium behind the right aortic valve cusp, courses over the anterosuperior surface of the right ventricle and terminates near the anterior interventricular groove. Significant relations were found between the anatomic variations of this coronary artery and the remainder of the coronary arterial tree and the myocardium. The incidence of occlusions in the conus artery is much lower than that of the three main coronary artery trunks, but is similar to that in the primary branches of the coronary arterial tree. The conus artery often serves as a source of anastomotic blood supply directly from the aorta to the other vessels of the heart when these are narrowed or occluded. The amount of myocardial damage resulting from coronary artery occlusion and narrowing is in part determined by the presence or absence of anastomoses between the conus artery and the rest of the coronary arterial tree.

American Journal of Medical Sciences, Philadelphia

218:603-730 (Dec.) 1949

Occurrence of Atheromatous Lesions After Cauterization of Aorta Followed by Cholesterol Administration. J. G. Schlichter, L. N. Katz and J. Meyer.—p. 603.
Vascularization of Aorta: II. Comparative Study of Aortic Vascularization of Several Species in Health and Disease. J. Schlichter and R. Harris.—p. 610.
*Premenstrual Intoxication. E. J. Stieglitz and S. T. Kimble.—p. 616.
*Parathyrotoxicosis: Syndrome of Acute Hyperparathyroidism. S. O. Waife.—p. 624.
Lower Nephron Nephrosis: Carbon Tetrachloride Poisoning with Report of 3 Cases. C. J. McGee.—p. 636.
*Clinical Study of Institutional Outbreak of Acute Infectious Lymphocytosis. G. B. Barnes Jr., H. Yannet and R. Lieberman.—p. 646.
Clinical Experiences in Parkinsonism with New Type of Antispasmodic, 3-(1-Piperidyl)-1-Phenyl-1-Cyclohexyl-1-Propanol Hydrochloride ("Artane"). M. Canelis, F. J. Franell and T. H. McGavack.—p. 655.
Association of Hypoproteinemia with Severe Tropical Sprue. G. G. Lopez, F. Milanes, T. D. Spies and others.—p. 660.
Effects of Vasodilator Drugs and Other Procedures on Digital Cutaneous Blood Flow, Cardiac Output Blood Pressure, Pulse Rate, Body Temperature. O. Horwitz, H. Montgomery, E. D. Langsher and A. Sajen.—p. 669.
Hysterectomy. F. B. Bluck.—p. 683.
Plasma Protein Fractionation in Pediatrics: Review of Its Present Status. A. M. Bongiovanni and I. J. Wolman.—p. 700.

Premenstrual Intoxication.—According to Stieglitz and Kimble premenstrual intoxication, with its attendant edema and retention of sodium chloride and toxic materials is engendered by either some cyclically appearing metabolic toxins, such as

the menotoxin of Macht, or a transient hyperestrogenemia or both. The high frequency of coincident nutritional anemia and migraine is suggestive of some underlying constitutional factor. The authors treated 67 patients with enteric coated ammonium nitrate, 1.0 Gm. three times a day for approximately 10 days premenstrually. Sixty-one of the patients responded with almost complete control of their symptoms. Improvement was noticeable during the first month of therapy and usually reached a maximum after two or three months. Symptoms tended to recur on discontinuance of therapy. The diuretic therapy was much less effective if applied after the onset of symptoms of intoxication, as observed in those patients who were too forgetful to start their medication in advance of each recurrent episode. In those instances where menstruation was irregular, administration of the ammonium nitrate was prescribed to start ten days before the expected date of the next period assuming the shortest cycle for the particular patient and then continued until menstruation actually started. A liberal fluid intake was encouraged. Many of these patients had been taking little water. The great improvement in symptoms by simple diuresis, induced by ammonium nitrate, supports the idea that this symptom complex is an intoxication. The nitrate rather than the chloride salt of ammonium is employed because of its greater diuretic efficiency and it does not increase the chloride content of the tissues.

Acute Hyperparathyroidism.—Waife points out that, although hyperparathyroidism is always thought to be a chronic disease, it can be an acute and often fatal disease. He presents histories of 5 cases, 3 of which he regards as "primary." One of the patients died in the early stage, one had the gland removed but not until irreversible renal damage occurred, and the third had a parathyroidectomy before renal damage occurred. The other *2* may be regarded as "secondary" to advanced nephritis. In the "classic" cases of acute hyperparathyroidism, in a middle-aged man or woman, who may have had a previous history of gastrointestinal disturbances, epigastric pains, persistent vomiting and constipation quickly develop. There is weakness and apathy. Weight loss occurs if the symptoms last long enough. The clinical impression may be that of a duodenal ulcer, but, even though a duodenal deformity may be present, achlorhydria is likely to be present. In spite, or perhaps because, of an ulcer regimen, the course is progressive. Fever and azotemia occur. The blood pressure often ranges from upper normal to frank hypertension. Moderate albuminuria is found. The serum calcium is usually greatly increased in the primary type, but the serum inorganic phosphorus may be normal. Roentgen examination of the kidneys may show a diffuse mottled calcification. On autopsy, there are likely to be calcium deposits in the renal tubules (nephrocalcinosis) as well as in the gastric mucosa, alveolar tissue, myocardium and elsewhere. Frequently an adenoma of the parathyroid gland is found, but other cases may show diffuse hyperplasia. Early recognition of the acute form of hyperparathyroidism is important, because only surgical removal of the offending gland can prevent the almost inevitable tragic outcome.

Institutional Outbreak of Acute Infectious Lymphocytosis.—The occurrence of an epidemic of acute infectious lymphocytosis in a large institution caring for approximately 1,400 mentally defective and epileptic patients gave Barnes and his associates an opportunity to study this disorder. They report the results of various studies and the clinical course in 86 of the inmates and 1 employee. The epidemic demonstrated three characteristic features: great infectivity, paucity of significant symptoms and physical signs and a relatively uniform hematologic picture. In the two cottages that were most closely followed over 50 per cent of the exposed persons contracted the disease. The outstanding features were the changes in the blood. Leukocytosis due to an increase in the number of lymphocytes was found in all cases. The lymphocytosis was always striking, with lymphocytes ranging between 60 and 93 per cent at the height of the disease. The leukocytic response differed in adults and children. The average white cell peak for the 14 adults was 25,600 per cu. mm., contrasted with an average of 47,000 for the 23 children. This was true also of the lymphocytosis in which the average highest absolute value for the adults was 16,000 and for the children 34,000. An absolute eosinophilia was observed in all the cases. Mazzini serologic tests were done on 38 patients, and results were all negative. Results of heterophil agglutination tests (Paul-Bunnell) performed on the same patients were also negative. Nineteen subjects were examined for cold agglutinins; only *2* showed elevated titers. Stool examinations for ova and parasites in 12 patients were negative, except for *2* whose stools contained Oxyuris vermicularis ova. Skin tests for Trichinella spiralis on the 15 patients exhibiting the most pronounced eosinophilia showed only one with a positive reaction. There was no evidence that the clinical course of the disease was in any way affected by sulfadiazine or penicillin. The treatment was entirely symptomatic. All patients made an uneventful recovery.

American Journal of Physiology, Baltimore

159:409-608 (Dec.) 1949. **Partial Index**

Discharge of Adrenocorticotrophic Hormone from Transplanted Pituitary Tissue. Chi-Ping Cheng, G. Sayers, L. S. Goodman and C. A. Swinyard.—p. 426.
Adrenocorticotrophic Effect of Stress After Severance of Hypothalamo-Hypophyseal Pathways. C. Fortier and H. Selye.—p. 433.
Noradrenalin-Like Substance in Blood: Demonstration by Cross-Circulation. I. H. Page, R. D. Taylor and R. Prince.—p. 440.
Double Action of Adrenalin on Small Intestine. M. L. Chakrabarty.—p. 457.
Creatine-Creatinine Indices of Diabetic Subjects and Effect of Muscular Degeneration. S. Caspe, B. Davidson and J. Trubiar.—p. 461.
Determination of Kinetic Energy of Heart in Man. O. Prec, L. N. Katz, L. Sennett and others.—p. 483.
Repolarization in Dog Ventricle: Effects of Heating and Cooling Entire Epicardial Surface. L. C. Akman, E. N. Silber, A. J. Miller and L. N. Katz.—p. 492.
Action Potential of Heart Muscle. H. J. Curtis.—p. 499.
Nature of Pyrogen Fever: Effect of Environmental Temperature on Response to Typhoid-Paratyphoid Vaccine. R. Grant.—p. 511.

Am. J. Roentgenol. & Rad. Therapy, Springfield, Ill.

63:777-938 (Dec.) 1949

Relationship of Roentgenographic Appearance of Pulmonary Artery to Pulmonary Hemodynamics. R. F. Healey, J. W. Dow, M. C. Sosman and L. Dexter.—p. 777.
Fate of Oil Particles in Lung and Their Possible Relationship to Development of Bronchiogenic Carcinoma. L. R. Sante.—p. 788.
Case of Bilateral Pneumothorax, Associated with Pneumomediastinum, Atelectasis, Pulmonary Edema and Subcutaneous Emphysema, Occurring During Labor: Mediastinal Air Block. N. J. Furst and L. R. Lawrence.—p. 794.
Study of Effect of Certain Drugs on Curling of Esophagus: Preliminary Report. A. Sheinmel, C. A. Privitera and M. H. Poppel.—p. 807.
Emphysematous Cholecystitis. J. Friedman, J. R. Aurelius and L. G. Rigler.—p. 814.
Lipomas of Gastrointestinal Tract. W. L. Palazzo.—p. 823.
Dilatation of Jejunum. L. E. Hawes.—p. 831.
Roentgen Demonstration of Fetal Death (Gas Within Fetus) and Uterine Rupture: Report of 3 Unusual Cases. C. N. Davidson.—p. 837.
Sarcoma of Urinary Bladder in Children with Review of Literature. G. W. Henry.—p. 843.
Partly Duplicated Colon: Case Report. B. Gondos.—p. 855.
Roles of Surgery and Radiology in Treatment of Cancer. L. H. Garland.—p. 858.
Analysis of Physical Factors Controlling Diagnostic Quality of Roentgen Images: Part V. Unsharpness. R. J. Morgan.—p. 870.
Extended Tube Technique in Intra-Oral Roentgenography. R. M. Appleman.—p. 881.

Archives of Ophthalmology, Chicago

43:1-196 (Jan.) 1950

Differential Diagnosis of Paresis of Superior Oblique and Superior Rectus Muscles: Observations in 6 Cases, with Discussion on Their Significance. P. J. Giotta.—p. 1.
Effects of Experimental Retinal Anemia in Rats. W. Turnbull.—p. 9.
Flakes of Iris Pigment on Posterior Surface of Cornea Following Cataract Extraction. W. S. Atkinson.—p. 32.
Use of Di-Isopropyl Fluorophosphate (DFP) in Treatment of Glaucoma. W. C. Stone.—p. 36.
Hemangioblastoma of Retina (Von Hippel-Lindau Disease). A. Rados.—p. 43.
Pericentral Ring Scotoma. M. R. Stall.—p. 66.
New Foreign Body Instruments and Their Use. W. H. Howard.—p. 92.
*Migraine and Its Ocular Manifestations. H. C. Donahue.—p. 96.

Migraine and Its Ocular Manifestations.—Donahue reviewed over 1,600 cases of migraine. Visual disorders with scintillating scotomas and fortification spectrums occurred in 54 per cent of the cases; such auras are supposedly due to cortical malfunction produced by cerebral anoxemia. There were 296 cases of paralysis of the ocular muscles. Pupillary disturbances

were reported in many forms; a unilateral fixed, dilated pupil was reported in 76 cases. A unilateral dilated pupil reacting to light occurred in 49 cases. Hippus was reported in 3 cases, and inequality in pupils was noted in 423. Unilateral blindness, transient amaurosis and obstruction or thrombosis of the retinal vessels have been described. Edema of the retina and retinal hemorrhage were recorded in numerous cases, being reversible in all. Ocular abnormalities of diverse types are common in the course of migraine. Explanation of many of them is still lacking.

Archives of Surgery, Chicago

60:1-202 (Jan.) 1949

Secretory Studies on Isolated Stomach. L. R. Dragstedt, E. R. Woodward, W. B. Neal Jr. and others.—p. 1.
Surgery of Biliary Tract: Five Year Survey. J. Gaster.—p. 21.
*Acute Appendicitis: Evaluation of Factors Contributing to Decrease in Mortality in Municipal Hospital Over Twenty Year Period. L. R. Slattery, S. A. Yannitelli and J. W. Hinton.—p. 31.
Anesthesia for Operations on Heart and Great Vessels. G. A. Light, H. M. Livingstone and W. E. Adams.—p. 42.
Penetrating Abdominal Wounds with Special Reference to Operation in Presence of Shock. W. H. Walker.—p. 55.
Gastric Diverticula. J. Greenfield, N. E. Rossett and W. H. Mendel.—p. 65.
Evaluation of Gastrostomy for Malignant Disease. R. C. Clay.—p. 75.
Tumor of Carotid Body Associated with Nodular Goiter: Report of Case. A. J. Corbett and J. C. McClintock.—p. 81.
Behavior of Gelatin Film in Human Tissue and as an Aid in Repair of Pleural Defects. W. Weisel, W. B. Ross and J. M. Lubitz.—p. 87.
Benign Tumors of Esophagus: Report of Case of Leiomyoma. P. S. H. Chi and W. E. Adams.—p. 92.
Intraperitoneal Drip for Postoperative Administration of Fluids: Preliminary Report. J. K. Narat, A. F. Cipolla, J. P. Cangelosi and A. L. Vincenti.—p. 102.
*Treatment of Chronic Osteomyelitis with Penicillin and Primary Closure of Operative Wounds. L. G. Howard, D. G. Anderson, K. Christophe and others.—p. 112.
*Streptomycin in Chronic Traumatic Osteomyelitis. W. S. Smith and J. B. Ganey.—p. 125.
*Identification of Toxin of Clostridium Organisms in Experimental Intestinal Obstruction. R. E. Anderson and C. A. Tanturi.—p. 143.
Tubulation of Urinary Bladder in Repair of Low Ureteral Injuries. A. Brunschwig and V. K. Pierce.—p. 154.
Heterotopic Pancreatic Tissue and Gastric Mucosa in Meckel's Diverticulum. R. Bigelow and D. E. Clark.—p. 157.
Changes in Coagulation Time Associated with Experimental Acute Pancreatitis in Dogs. E. P. Lasker Jr. and M. M. McCabe.—p. 164.
Tumors of Bone and Synovial Membrane. H. W. Meyerding, F. L. Fleshman, R. D. Mussey Jr. and others.—p. 170.
Review of Urologic Surgery. A. J. Scholl, F. Hinman, E. Crowley and others.—p. 182.

Acute Appendicitis: Factors Contributing to a Decrease in Mortality.—According to Slattery and co-workers, the present decade has witnessed a spectacular drop in the mortality rate of acute appendicitis. There were 14,113 fatalities due to appendicitis in the United States in 1939, while in 1946 there were only 5,285. The authors review 952 cases of acute appendicitis treated in the Fourth Surgical Division of Bellevue Hospital during the twenty year period 1928-1947. During these years a progressive decline in morbidity and mortality became evident. The greatest single factor in the reduction of mortality has been the greater number of patients seen in the early stages of the disease. Public health education and increased alertness of the medical profession are responsible for much of this improvement. The sulfonamide compounds and antibiotics have contributed to the decrease in deaths due to postoperative peritonitis and a diminution of complications secondary to infection. The increased use of the McBurney incision and the decreased use of drains are not clearcut factors in the reduction of mortality.

Penicillin and Primary Closure in Chronic Osteomyelitis.—Howard and his collaborators used penicillin without surgical intervention in 32 patients with chronic osteomyelitis and with surgical intervention and primary closure in 55 patients. The results in the 32 patients appeared satisfactory at first, but many patients had relapses and the end results were unsatisfactory in the majority of the cases. In 55 cases surgical intervention and primary closure were delayed until there was an adequate concentration of the drug to minimize spread of the disease. Methylene blue was injected into sinuses, to facilitate complete excision, after which the wound was irrigated with isotonic sodium chloride solution and suction apparatus was utilized to remove this and all bone sand. One or more fine soft rubber catheters were inserted into the deeper portions of the bone and wound cavity and sutured to the skin for postoperative administration of penicillin (not for drainage). The wound was closed. A sterile dressing was applied, with catheters protruding. The ends of the catheters were clamped and covered with sterile gauze. Penicillin reached the operative area continuously through the capillary bed as the result of systemic administration and intermittently as it was injected through the catheters. The usual postoperative supportive treatment was given; 25,000 to 50,000 units of penicillin was immediately injected into the catheters, and this was repeated two or three times daily until they were removed, between the tenth and fourteenth days. Eighty-one operations were performed on 60 bones in 55 patients. The symptoms were arrested in 59 of the 60 bones.

Streptomycin in Chronic Traumatic Osteomyelitis.—According to Smith and Ganey chronic traumatic osteomyelitis following injuries of long bones was one of the most serious problems confronting the army hospitals after the cessation of hostilities. Over 300 patients with chronic osteomyelitis were treated at Oliver General Hospital from Oct. 1, 1946 to Jan. 1, 1948. The authors sought to evaluate the effectiveness of streptomycin with or without the combination of penicillin in 26 cases of united fractures. Four cases of infection following bone graft and 1 case of chronic hematogenous osteomyelitis were also added. Earlier experience with intramuscular injection of streptomycin having proved the desirability of high local levels, the authors administered the drug locally by continuous drip. First 1,000,000 units of streptomycin were placed in 1,000 cc. of isotonic sodium chloride solution. The preparation was allowed to drip into the wound continuously over a twelve hour period daily. The dosage was increased to 2,000,000 and then 4,000,000 units of streptomycin daily until a pronounced clinical effect was noted. Since mixed infections with both streptomycin and penicillin-sensitive organisms were found to be relatively common, penicillin was sometimes given in addition in doses of 1,000,000 units per thousand cubic centimeters of isotonic sodium chloride solution. The choice of the drug or of the combination of drugs depended on wound cultures, and in no instance was either streptomycin or penicillin employed unless it was indicated by the culture. In 20 of the 31 cases streptomycin was administered only parenterally; the results were good in 7 and fair in 5, but in the remaining 8 cases they were either poor or questionable. Eleven patients were treated with combined continuous local administration of streptomycin and penicillin and parenteral administration of streptomycin; in 7 of these the results were good, in 3 fair and in 1 the treatment failed.

Identification of Toxin of Clostridium in Intestinal Obstruction.—Anderson and Tanturi say that recent studies indicate that the toxemia in experimental appendicitis results from the absorption of the toxin of Clostridium organisms into the general circulation. Studies were undertaken to identify the Clostridium toxin from the lumen of a strangulated small intestine in dogs. Samples of abdominal exudate, present with such an obstruction, were also analyzed for the enzyme. Antitoxic properties of the serum of dogs which had recovered from experimental appendical peritonitis were studied in order to substantiate the thought expressed earlier by the authors that commercially prepared polyvalent gas gangrene antitoxin does not inhibit the enzymatic action of Clostridium toxin in dogs with the same specificity as does serum obtained from convalescent experimental animals. The shortest period after which the strangulated intestine and exudate were removed was three hours. Lecithinase could not be identified in the animal, although the bowel appeared black and dilated. Another dog was reoperated on at three hours and forty-five minutes, but toxin could not be identified. A positive identification of lecithinase from the intraluminal contents of strangulated ileum was first made five hours after the strangulation had been produced. Twelve animals were reoperated on in the period between five and twenty-four hours after strangulation. Lecithinase, the lethal factor of the toxin of the organisms of the Clostridium group, was identified in the contents of the lumen of 11 of the 12 dogs with obstructed, strangulated small intestine. This toxin was identified in the abdominal exudate present with such

an obstruction in one third of the cases when gross perforation of the obstructed segment had not occurred. It was possible to demonstrate the inability of commercial polyvalent gas gangrene antitoxin to inhibit the hydrolysis of lecithin by the toxin of the Clostridium organisms harbored in the dog. Serum taken from dogs which have recovered from gangrenous intraperitoneal lesions prevents the hydrolysis of lecithin by the lecithinase identified in obstructed, strangulated small intestine in dogs. This convalescent serum also inhibits the hydrolysis of lecithin by standard Clostridium welchii toxin.

Canadian J. of Research, Medical Sciences, Ottawa

27:309-386 (Dec.) 1949. Partial Index

Interfacial Precipitation of Cholesterol in Human and "Artificial" Biles. P. Fitz-James and A. C. Burton.—p. 309.
Production of Acute Massive Hepatic Necrosis in Rats by Dietary Means. M. R. Abell and J. M. R. Beveridge.—p. 316.
Effect of Surgical Operations on Excretion of Iodine, Corticosteroids, and Uric Acid. W. F. Perry and J. P. Gemmell.—p. 320.
Cholinesterases of Cerebrospinal Fluid: Data for Normal Fluids and Fluids from Patients with Syphilis, Meningitis, or Poliomyelitis. K. G. Colling and R. J. Rossiter.—p. 327.
Some Observations on Interference Between Neurotropic Viruses. A. J. Rhodes and M. Chapman.—p. 341.
*Effects of Ascorbic Acid on Several Biologic Variables Normally Affected by Cold. M. Thérien, J. Leblanc, O. Héroux and L. P. Dugal.—p. 348.

Effects of Ascorbic Acid and Exposure to Cold.—Thérien and his associates investigated the effect of ascorbic acid on the biologic changes normally associated with the hypertrophy of the adrenals during exposure to cold. They found that ascorbic acid partly inhibits the thymus atrophy normally encountered on exposure to any stress, including cold. It accelerates the enlargement of the thyroid. It is responsible for an increase in the weight of the spleen, whereas the control animals showed a decrease in the weight of the same organ. The histamine content of the adrenals, which increases at room temperature under the influence of ascorbic acid, is significantly decreased during exposure to cold under the influence of the same substance. The activity of the adrenals, far from being inhibited by ascorbic acid, is even increased if the cholesterol changes are taken as an index of that activity. The initial hypotension due to cold, found in the controls, is prevented by large doses of ascorbic acid. If hypertension develops after long exposure to cold, the subsequent administration of large doses of ascorbic acid restores the blood pressure to normal. Confirmation has been obtained for the previously reported observation that ascorbic acid prevents the hypertrophy of the adrenals during exposure to cold.

Canadian Medical Association Journal, Montreal

61:553-650 (Dec.) 1949. Partial Index

*Effect of ACTH and Cortisone upon "Anaphylactoid Reaction." H. Selye.—p. 553.
*Extensive Outbreaks of Staphylococcal Infections in Maternity Units: (Use of Bacteriophage Typing in Investigation and Control). J. C. Colbeck.—p. 557.
Surgery in General Practice. C. J. Houston.—p. 565.
Role of General Practitioner in Prevention of Tuberculosis. J. Orr.—p. 571.
Role of Practising Physician in Prevention of Cancer Mortality. A. J. S. Bryant.—p. 574.
Streptomycin in Tuberculosis. M. Aronovitch and N. Lewis.—p. 577.
Arthritis: Its Treatment in the Home. F. S. Brien.—p. 583.
Periodic Paralysis. R. H. Hyland.—p. 586.
Some Thoughts on Infantile Eczema. A. R. Birt.—p. 589.
Regional Enteritis. J. D. Mills and F. W. Barootes.—p. 593.
Self-Sustained Hypertension in Albino Rat: Hypothesis to Explain It. S. M. Friedman and C. L. Friedman.—p. 596.
Thoracoplasty for Pulmonary Tuberculosis. G. M. Brownrigg.—p. 601.
Rehabilitation: Third Phase of Medicine. H. A. Rusk.—p. 603.
Follow-Up on Lumbar Disc Lesions. O. S. Waugh, H. F. Cameron, H. G. Scarrow and J. C. Howarth.—p. 607.
Diagnosis of Pulmonary Emphysema. A. Bogoch and J. E. Walker.—p. 611.

Pituitary Adrenal Corticotropic Hormone and Cortisone.—Experiments on rats by Selye demonstrated that cortisone (a glucocorticoid compound) and purified pituitary adrenal corticotropic hormone inhibit the anaphylactoid reaction of the rat to the parenteral administration of egg white. Desoxycorticosterone acetate (a mineralocorticoid compound) and lyophilized anterior pituitary, a highly corticotropic impure anterior pituitary preparation, failed to inhibit, and tended to aggravate, this reaction. These observations illustrate the possible clinical implications of the author's concept of "diseases of adaptation" on the therapy of these diseases. According to this concept, rheumatic and rheumatoid conditions, allergic anaphylactic phenomena, certain hypertensive diseases and nephrosclerosis may largely depend on a derangement of the pituitary adrenal cortex response to stress, a derangement in which the pattern of corticoid secretion is abnormal. The assumption of a pathogenic relationship between the adrenal cortex and the allergic rheumatoid and other collagen diseases received strong support from recent clinical observations showing that adrenal cortex extracts which are rich in glucocorticoids, and especially cortisone, produce beneficial effects in patients with chronic rheumatoid arthritis. Purified pituitary adrenal corticotropic hormone likewise proved effective in rheumatoid arthritis as well as in acute rheumatic fever and allied collagen diseases, such as lupus erythematosus.

Staphylococcic Infections in Maternity Units.—Colbeck reports a sudden increase in the number of cases of breast abscesses in mothers, associated with an outbreak of pustular skin lesions in the babies, in the maternity units of three general hospitals in Winnipeg, Canada, during the fall of 1947. In the spring of 1949, another similar outbreak, in spite of the previous enforcement of every recognized method of control, was observed in a fourth large hospital, which had previously been free of infection. Bacteriophage typing showed that the majority of the breast abscesses and other infections in the affected hospitals were due to Staphylococcus aureus of a particular type (phage "W" positive strains) or at least belonging to a certain group. There was a considerable number of carriers of this organism among the staff of the three hospitals first affected by the epidemic, but on the date when the swabbings of these staff members took place, two carriers of this type were observed among the staff of the fourth hospital which was not affected by the epidemic until eight months later. The percentage of carriers among the staff of this fourth hospital was not significantly greater when later the outbreak occurred. The 2 carriers found on the occasion before the outbreak of breast abscesses at this hospital were employed in the mother's ward and not in the nursery. Of the 3 carriers found at the beginning of the outbreak, one was a nurse in charge of the nursery and another was the consultant pediatrician. It is suggested that, whereas on the first occasion the susceptible infants were not exposed, on the second occasion they became infected from these 2 members of the staff. Only 2.7 per cent of mothers showed the pathogenic Staphylococcus on discharge from hospital at the height of the outbreak, when results of tests were positive in 26 per cent of the babies. This low incidence in the mothers was probably due to the small amount of contact between the mother and baby in hospital. Nose and throat swabs from mothers after their return home showed a great increase in the number of phage "W" carriers. The newborn infant's nose and throat is the most important reservoir of infection, from which infection is passed to the mother's breast. The initial stage of the epidemic is that of a respiratory infection. Every effort should be made to prevent air-borne infection of the babies. Prevention of puerperal breast abscesses during an outbreak should include active treatment of the infants with antibiotics or other means in order to prevent spread to the mother.

Illinois Medical Journal, Chicago

97:1-52 (Jan.) 1950

*Pulmonary Tuberculosis in Children Treated with Streptomycin. E. T. McEnery, H. C. Sweany and G. C. Turner.—p. 15.
Acute Intestinal Obstruction. A. M. Vaughn.—p. 20.
How Does Malaria Interest the Practitioner in Illinois? W. A. Sodeman.—p. 24.
Dyslexia From Physical Viewpoint. G. E. Park.—p. 30.
Obesity: Diagnostic, Therapeutic, and Nursing Difficulties. W. B. Smith.—p. 36.
Thoracopagus: Vaginal Delivery Without Destructive Operation. I. Siegel.—p. 40.
Bullous Emphysema and Asthma. M. M. Mosbo and J. O. Baugher.—p. 43.

Pulmonary Tuberculosis in Children Treated with Streptomycin.—McEnery and his associates of the clinical and research departments of the Chicago Municipal Tuberculosis Sanatorium say that, by a special order of the Board, in Novem-

ber 1947, all streptomycin was furnished free to patients for whom the Medical Board considered the treatment indicated. The cases were under observation for two to thirty-six months. Each child's history was reviewed by a "streptomycin board" for evaluation, and suggestions as to the plan of streptomycin therapy. All patients accepted for streptomycin treatment had positive sputums from either gastric washings or bronchoscopic aspirations, and results of Mantoux tests were positive. All the roentgenograms revealed lung infiltration, usually of an advanced degree. In the beginning of this study the majority of the patients received 0.5 Gm. in divided doses, twice daily. This was reduced to 0.3 Gm. once daily for all children. Sixteen of the 25 patients were given the drug for 120 days; 9 were treated for 60 days. The treatment lessened or counteracted the toxic manifestations. Improvement usually became apparent within a few days after the treatment was begun. It reversed the general downward course of the disease. Improvement in the physical findings was demonstrable in 30 to 60 days after treatment was begun. Decreased roentgenologic findings followed the improvement in the clinical picture. Sputum conversion was completed in four to five months in 89 per cent of progressive primary lesions. The hospital stay was uniformly reduced from about two to three years to six to eight months.

Iowa State Medical Society Journal, Des Moines

40:1-46 (Jan.) 1950

Prolonged Labor. W. F. Mengert.—p. 1.
Electrocardiogram and Standard Exercise Test in Coronary Insufficiency. L. E. January and T. G. Coleman.—p. 3.
Immediate and Early Plastic Closure of Open Wounds and Raw Surfaces. J. M. Bruner.—p. 7.
General Considerations of Maxillofacial Surgery. D. F. Ward.—p. 9.
Report of Case of Acute Yellow Atrophy in Pregnancy with Recovery. D. C. Sharpe.—p. 11.

40:47-98 (Feb.) 1950

Hemangioma of Liver. F. W. Preston and J. T. Priestley.—p. 47.
Progress in Treatment of Blood Dyscrasias. W. M. Fowler.—p. 51.
Multiple Intussusception: Review of Literature and Report of Case. M. J. Brown and D. F. Weaver.—p. 57.
Retrolental Fibroplasia. A. H. Downing.—p. 60.
Neurogenic Vesical Dysfunction. C. W. Latchem.—p. 65.

Journal of Aviation Medicine, St. Paul

20:381-474 (Dec.) 1949

Aero Medical Problems of Space Travel: Panel Meeting, School of Aviation Medicine. H. Armstrong, H. Haber and H. Strughold.—p. 383.
*Hearing of Airline Pilots: Ten-Year Study. K. M. Simonton.—p. 418.
Protection Afforded Cerebrovascular System by Cerebrospinal Fluid Under Stress of Negative G. E. L. Beckman.—p. 430.
Cybernetics and Aviation Medicine. P. A. Campbell.—p. 439.
Safe Parachute Descent—An Unsolved Problem. H. A. Smedal and A. P. Webster.—p. 443.
Toxic Cases and Civil Aircraft. C. R. Spealman.—p. 448.
New Human Centrifuge. R. L. Christy.—p. 454.
Follow-Up Study of Psychiatric Cases Which Occurred in AAF Combat Personnel. W. A. Carlson.—p. 459.

Hearing of Airline Pilots.—Simonton found in his study of the audiograms of 47 airline pilots, taken at intervals of ten years, loss of hearing of 36 amounted to 15 or more decibels in one or more frequencies. The majority of these losses were recorded for frequencies of 4,096 cycles per second or higher. Nine pilots had a loss of 15 or more decibels in the frequencies of normal speech, that is, 512 to 2,048 cycles per second. Four pilots had a final threshold of hearing which was greater than 30 decibels for one or more of the frequencies of speech in one or both ears. He concluded that the data obtained confirm the opinion of other authors that loss of hearing attributable to flight is not a serious problem. The data also suggest that an individual pure tone audiogram may form the basis for an estimate of future hearing loss. The threshold audiogram taken in quiet surroundings is not a good index of the efficiency of the pilot's hearing when in flight. Tests of hearing for the spoken voice and directional radio beam, delivered by earphones and conducted against a background of noise simulating that present in the cockpit of an airplane in flight, would be a more effective method of estimating the efficiency of a pilot's hearing under flight conditions.

Puerto Rico J. Pub. Health & Trop. Med., San Juan

25:153-290 (Dec.) 1949

Biological Studies on Miracidium of Schistosoma Mansoni: II. Behavior of Unhatched Miracidium in Undiluted Stools Under Diverse Environmental Conditions. J. F. Maldonado, J. Acosta Matienzo and C. J. Thillet.—p. 153.
Studies on the Genus Salmonella: I. Antigenic Studies by Precipitation Reaction. L. M. González, P. Morales Otero and O. Felsenfeld.—p. 200.
Schistosoma Mansoni Infection Resulting from Exposure to Cercariae Proceeding from Single, Naturally Infected Snails. J. F. Maldonado and F. Vélez Herrera.—p. 230.
Evaluation of Therapeutic Effectiveness of Fuadin and Anthiomaline in Treatment of Mansen's Schistosomiasis. F. Hernández Morales, D. Santiago Stevenson, J. Oliver González and J. F. Maldonado.—p. 256.

Radiology, Syracuse, N. Y.

53:781-936 (Dec.) 1949

Congenital Obstructions of Alimentary Tract in Infants and Children: Errors of Rotation of Midgut. F. N. Silverman and J. Caffey.—p. 781.
*Reliability of Roentgen Examination in Hypertrophic Pyloric Stenosis in Infants. H. W. Hefke.—p. 789.
Pneumonia in Children Following Ingestion of Petroleum Products. C. H. Heacock.—p. 793.
Radiology in Neurosurgical Conditions in Childhood. N. Gotten and C. D. Hawkes.—p. 798.
Pathogenesis of Bronchiectasis: Roentgen Contribution. F. G. Fleischner.—p. 818.
Roentgen Findings in Sickle-Cell Anemia. D. S. Carroll and J. W. Evans.—p. 834.
Rapid Automatic Serialization of X-Ray Exposures by Rapidograph, Utilizing Roll Film Nine and One-Half Inches Wide. W. G. Scott and S. Moore.—p. 846.
Retrograde Aortography: Its Value in Diagnosis of Coarctation of Aorta by Means of New Indirect Sign. R. Pereiras and A. Castellanos.—p. 859.
Depth Dose of Electrons from Betatron. L. S. Skaggs.—p. 868.

Hypertrophic Pyloric Stenosis in Infants.—Hefke reports on 210 patients in whom the roentgen diagnosis of hypertrophic pyloric stenosis was made at the Milwaukee Children's Hospital during the decade of 1938 to 1948. The roentgen diagnosis was confirmed in 203 of the 205 patients on whom operation was performed for pyloric stenosis. The so-called pyloric string sign, i. e., the demonstration of the narrowed elongated pyloric canal, observed as a thin streak of barium, 1.5 to 2.5 cm. long, in the prepyloric region of the stomach, proved the most reliable roentgen sign. A stringlike roentgen ray appearance of the second and third portions of the duodenum was wrongly interpreted as the pyloric string sign in the remaining 2 cases. A delay of the pyloric opening to more than 30 minutes is in itself, without demonstration of the pyloric string sign, sufficient for the correct diagnosis. A tumor was revealed by surgical intervention in only 1 of 150 cases in which the clinician considered the diagnosis of pyloric stenosis but in which the roentgen observations were normal. The roentgen examination is superior to the clinical examination and should be used more extensively, particularly in early or doubtful cases.

South Dakota Journal of Medicine, Sioux Falls

2:357-396 (Dec.) 1949

Treatment of Congestive Heart Failure. G. G. Spellman.—p. 357.
Cooperative Movement in Medicine. C. H. Crownhart.—p. 360.
Extracts of Molds Grown on Synthetic Media. F. W. Bieberdorf and J. W. Argabrite.—p. 365.
Thirty-Five Years' Experience in Giving of Blood Transfusions. G. E. Van Demark.—p. 372.

Yale Journal of Biology and Medicine, New Haven

22:199-302 (Jan.) 1950

Preventive Medicine at Yale University School of Medicine, 1940-49. J. R. Paul.—p. 199.
Observations on Role of Vagal Activity in Effects of Pulmonary Embolism. J. H. Cort and G. D. Davis.—p. 213.
Witch's Milk and Witches' Marks. T. R. Forbes.—p. 219.
Metabolic Response of Infants to Heat Stress. R. E. Cocke, E. L. Pratt and D. C. Darrow.—p. 227.
Gas Exchange in Lung Deprived of Pulmonary Arterial Supply. W. Harrison and A. A. Liebow.—p. 251.
Role of Proteolytic Enzymes in Biosynthesis of Peptide Bonds. J. S. Fruton.—p. 263.
Studies in Vascular Repair: IV. Use of Free Vascular Transplants for Bridging Arterial Defects. Historical Review with Particular Reference to Histological Observations. G. Schloss and H. B. Schumaker Jr.—p. 273.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted. Single case reports and trials of new drugs are usually omitted.

Archives of Disease in Childhood, London

24:237-318 (Dec.) 1949

Treatment of Diabetes in Childhood. A. Lichtenstein.—p. 237.
Studies in Coeliac Disease: Fat Absorption. W. Sheldon and A. MacMahon.—p. 245.
Protein Requirements of Infants: 2. Marasmus. W. F. Young, E. A. Bishop, E. M. Hickmans and Y. J. Williams.—p. 250.
*Diagnostic Value of Cardiac Catheterization in Isolated Pulmonary Stenosis and Large Interventricular Septal Defects. E. Mannheimer. —p. 264.
*Symmetrical Cortical Necrosis of Kidneys in Infancy and Childhood. A. C. P. Campbell and J. L. Henderson.—p. 269.
Miliary Sebaceous Cysts and Blisters in Healthy Newborn. I. Gordon. —p. 286.
Study of Ten Children After Treatment with Streptomycin for Tuberculous Meningitis. J. Lorber.—p. 289.
Physical and Mental Development of Children with Congenital Heart Disease. M. Campbell and G. Reynolds.—p. 294.
Congenital Toxoplasmosis: Report of 2 Cases. J. H. Hutchison.—p. 303.
Complete Auriculo-Ventricular Heart Block in Foetus and Newborn. I. D. Riley.—p. 309.

Diagnostic Value of Cardiac Catheterization.—Mannheimer reports on heart catheterization in isolated congenital pulmonary stenosis without an overriding aorta and in large interventricular septal defects. His group studied 7 cases of isolated pulmonary stenosis during the last two years. The condition in these 7 cases differs from the earlier conception of this disease. In this type there is no cyanosis and the symptoms are so mild that the affected persons can live a normal life. There is no retardation in growth and only slight limitation of activity. The diagnosis is made entirely by cardiac catheterization. What was previously regarded as idiopathic pulmonary dilatation may actually be isolated pulmonary stenosis with poststenotic dilatation. In all 3 cases of interventricular septal defect reviewed in this report the clinical diagnosis had been interauricular septal defect. Cardiac catheterization in 1 of the 3 revealed a patent ductus with a decided difference in oxygen content between the pulmonary artery and right ventricle, indicating a left to right extracardiac shunt through the ductus. In the second patient the slight cyanosis and the retarded physical development indicated the same diagnosis. Catheterization, however, revealed a huge ventricular septal defect, with an enormous left to right shunt of about 80 per cent. Thus this heart functioned as a cor triloculare with a common ventricle, the oxygen content of the right ventricle and that of the femoral artery being almost equal. This case shows how difficult or even impossible it is to make the correct diagnosis in vivo without catheterization. Calculation of the flows and the shunt from the differences in oxygen content reveals that the pulmonary flow is five times as great as the systemic flow. In other words, of the amount of blood coming from the lungs and reaching the left side of the heart, 80 per cent is shunted into the right ventricle and out into the pulmonary artery again. During systole both ventricles communicate. In the third case the clinical picture was the same; the shunt was also very large, but the pressure in the lesser circulation was normal. This suggests that the interventricular septal defect did not function during systole.

Symmetric Cortical Necrosis of Kidney in Childhood.—According to Campbell and Henderson only 9 cases of bilateral cortical necrosis of the kidneys occurring in children under 15 years of age are recorded in medical literature. They report 4 cases of their own. Two of these occurred in infants. They are of interest since the disease has never before been reported in infancy. The 4 cases had a fatal outcome. Necropsy reports are presented along with clinical histories. The symptoms were essentially the same as in adults. Infection was a feature in 9 of the 13 cases, and it may have been present in some of the other 4. Severe acute parenteral infection was a feature in 5 patients; 3 had acute hemolytic streptococcic infection, 1 had pneumonia and 1 had pneumonia followed by empyema. Acute rhinopharyngitis was observed in 1 of the 4 reported cases. Chronic infection in the form of tuberculosis was a feature in 2 cases. One had a pulmonary infection and the other an intestinal infection. Infective enteritis was presumed in 3 of the 13 patients. Attention was first drawn to the urinary abnormality by the development of oliguria, anuria or hematuria. Anuric or oliguric renal failure is the predominant feature. The occurrence of vascular disturbances in other parts of the splanchnic vascular bed, notably in the bowel, is emphasized. Diarrhea, with or without passage of blood, is a frequent symptom. The renal lesion is regarded as the predominant feature of a splanchnic vasospastic syndrome.

British Medical Journal, London

1:1-80 (Jan. 7) 1950

Advances in Medicinal Therapeutics. H. H. Dale.—p. 1.
Surgery 1900-1950. G. Jefferson.—p. 8.
Fifty Years of Midwifery. R. W. Johnstone.—p. 12.
Fifty Years of Medical Research and Practice. H. Cohen.—p. 16.
Fifty Years of Clinical Pathology. L. Whitby.—p. 21.
Prevention and Control of Infection. R. Cruickshank.—p. 25.
Development of Psychological Medicine. J. Rickman.—p. 30.
Fifty Years of Tropical Medicine. J. S. K. Boyd.—p. 37.
Fifty Years of Radiology. S. C. Shanks.—p. 44.
Fifty Years of Public Health Legislation. A. S. MacNalty.—p. 48.
Fifty Years of Progress as Shown by Vital Statistics. P. Stocks.—p. 54.
Medical Progress from 1850 to 1900. C. Singer.—p. 57.

Journal of Physiology, Cambridge

110:1-248 (Dec.) 1949. Partial Index

Mechanics of Semicircular Canal. A. A. J. van Egmond, J. J. Groen and L. B. W. Jongkees.—p. 1.
Factors Determining Time Course of Rigor Mortis. E. C. Bate-Smith and J. R. Bendall.—p. 47.
Variability of Vital Capacity of Normal Human Subject. J. N. Mills. —p. 76.
Influence of Abdominal Distension upon Vital Capacity. J. N. Mills. —p. 83.
Action of Potassium Ions on Brain Metabolism. K. C. Dixon.—p. 87.
Nicotinin Action of Substances Supposed to Be Purely Smooth-Muscle Stimulating. N. Anduche.—p. 143.
Actions of Noradrenaline, Adrenaline and Isopropyl Noradrenaline on Arterial Blood Pressure, Heart Rate and Muscle Blood Flow in Man. H. Barcroft and H. Konzett.—p. 194.
Influence upon Vital Capacity of Procedures Calculated to Alter Volume of Blood in Lungs. J. N. Mills.—p. 207.

J. Royal Inst. Public Health and Hygiene, London

13:1-36 (Jan.) 1950

*Popular Fallacies Regarding Human Nutrition. H. E. Magee.—p. 11.
Food Utensil Sanitation. L. E. Thomas.—p. 17.

Popular Fallacies Regarding Nutrition.—Magee shows that two new discoveries in nutrition, the biologic value of proteins and the vitamins, have led to some wrong appraisals. The notion gradually developed that animal protein is the only protein essential in practical dietetics. Animal protein is desirable because it contains all the 10 essential amino acids. However, the precise amount of animal protein it is desirable to take is not known. Most persons regard meat as a food which is nearly all protein, but about 60 or 70 per cent of it consists of water and the protein content is rarely as high as 20 per cent. Bread has 37 per cent water and about 8.5 per cent protein and, weight for weight, has almost the same energy value as roast beef. The discovery of the vitamins aroused so much interest that there has been a tendency toward overemphasis. To many the main criterion of the goodness of food is its content of vitamins, and some seem to think that, because a little is good for one, then a lot will be much better. There is no experimental evidence to show that healthy persons would benefit by taking vitamins over and above their ordinary requirements. Since 1939 calories have come more and more prominently before the public. Some persons seem to think that calories are a synonym for food and that they eat calories. It should be understood that one derives energy from proteins, fats and carbohydrates and expresses energy as calories. Some persons believe that carbohydrates are of little nutritional use. It is starch that is especially criticized, and potatoes, bread and other cereal foods rich in starch are often subjected to scorn as "starchy foods." If sugar were condemned there would be much more justification, for sugar is the most unbalanced of all foods commonly eaten by civilized man. It is devoid of vitamins, minerals and protein. Starch in natural foods like potatoes and bread is always accompanied with significant amounts of protein, mineral substances and vitamins. The author comments on the mistaken idea that the fat of milk is the only constituent of nutritional importance. Milk contains some of

each nutrient the body requires for its proper nutrition. Milk proteins are the most valuable of all forms of protein, and the mineral salts are easily made use of by the body and are present in properly balanced amounts. Vitamins A and D are present in the fat, so that when milk is skimmed the bulk of the fat and of these two vitamins are removed; all the other nutrients, however, remain in the skimmed milk.

Lancet, London

1:1-52 (Jan. 7) 1950

Auguries, Signs and Portents of Surgery. C. Wakeley.—p. 1.
Primary Umbilical Sepsis in the Adult: Report of 7 Cases. G. W. V. Greig and H. S. Shucksmith.—p. 4.
Diphtheria Immunisation in Young Babies: Study of Factors Involved. M. Barr, A. T. Glenny and K. J. Randall.—p. 6.
*Pituitary Adrenocorticotropic Hormone (ACTH) as Tool of Clinical and Laboratory Research. T. D. Spies and R. E. Stone.—p. 11.
Comparative Serum Testing with Cardiolipin and Standard Wassermann Antigens: Review of 5,124 Tests. I. N. O. Price and A. E. Wilkinson.—p. 14.
Chloromycetin in Scrub Typhus. H. McC. Giles and T. Symington.—p. 16.
*Hirschsprung's Disease. M. Bodian, F. D. Stephens and B. C. H. Ward.—p. 19.
Passage of Intestinal Tube per Anum. G. Frank.—p. 22.
Swallowed Bougie. J. A. Ross.—p. 22.

Pituitary Adrenocorticotropic Hormone (ACTH).—Spies and Stone believe that pituitary adrenocorticotropic hormone (ACTH) acts through a fundamental biochemical system of the body, with the result that the metabolism of all the cells is affected. The cases described in this paper demonstrated that repeated intramuscular injections of 25 mg. of ACTH were well tolerated during a short period of administration. There was prompt relief of symptoms in 5 patients with rheumatoid arthritis, 3 with gout, 1 with rheumatoid arthritis and psoriasis and 1 with rheumatoid arthritis, asthma, hay fever, urticaria and chronic eosinophilia of unknown origin. Amelioration of the symptoms and disappearance of swelling and tenderness of the joints in the patients with rheumatoid arthritis and those with gout began on the first or second day of therapy. There was a sharp decrease in the circulating eosinophils within four hours. The patients with rheumatoid arthritis relapsed within three to 14 days of the end of treatment. Within 96 hours after the last injection the patients had a diuresis with a loss of body weight and a decrease of blood pressure to the initial levels. Seven sterols resembling cortisone in structure were administered one at a time, with little or no decrease in symptoms. Each patient was then given injections of ACTH again; prompt and dramatic improvement followed. The side effects included water retention with an associated gain in body weight, some increase in blood pressure and pronounced elation in some patients. These studies throw no light on the mechanism by which ACTH relieves the symptoms arising from rheumatoid arthritis, gout, asthma, hay fever, urticaria and psoriasis or why the circulating eosinophils decrease in number after its administration. They are clinical leads for experimental studies.

Hirschsprung's Disease.—Bodian and his associates present a new concept of the organic etiology of Hirschsprung's disease, which differentiates it from idiopathic megacolon. Hirschsprung's disease, a congenital condition, may manifest itself as an acute intestinal obstruction in the newborn and, if not fatal, may have a chronic course with acute attacks. Medical and surgical procedures, other than colostomy, failed to produce more than transient relief, since they were aimed at treating the hypertrophied dilated megacolon and largely disregarded the narrow segment distal to it. Histologic examination of the entire intestinal tract in fatal cases revealed complete absence of ganglion cells from the intramural plexuses of this narrow distal segment. It was postulated that this would impair coördinated propulsive movement and lead to secondary hypertrophy and dilatation of the bowel proximal to the site of the lesion. A new surgical technic for removal of the abnormal distal segment, rectosigmoidectomy, has been used so far in 26 children. Postoperative follow-up for 12 to 15 months of the first 12 previously reported cases shows a most encouraging improvement in the children's general condition and a return to normal bowel habits. Radiologic examinations also indicate considerable regressive changes in the volume of the full colon and the surface area of the collapsed colon. Rectosigmoidectomy was done in 14 additional patients during 1949, with 2 deaths. Nine children are making satisfactory progress, comparable with that of the former group, notwithstanding some technical errors resulting in complications in 3 cases. The last three operations were too recent to be evaluated. Histologic examinations in 28 consecutive cases of Hirschsprung's disease have revealed two striking structural changes in the distal "narrow" segment of bowel: (1) absence of intramural ganglion cells and (2) presence of abnormal nerve bundles in the customary site of the intramural plexuses. These changes are thought to be characteristic of the condition.

Medical Journal of Australia, Sydney

2:797-828 (Dec. 3) 1949

Sir Richard Stawell Oration—"For He Had Great Possessions." F. K. Norris.—p. 797.
Pink Disease, with Clinical Approach to Possible Aetiology. R. Southby.—p. 801.
*Pertussis Immunization: Comparison of Parenteral and Oral Routes in Mice. D. F. Gray.—p. 807.
Epidemic of Acute Laryngo-Tracheo-Bronchitis in Toowoomba. R. D. Spooner.—p. 812.

Pertussis Immunization.—Experiments by Gray in mice and rabbits showed that 24 hour Bordet-Gengou cultured phase I Haemophilus pertussis vaccine is highly protective for mice when given parenterally and stimulates the formation of protective antibodies and agglutinins against phase I Haemophilus pertussis in rabbits. The same vaccine, when given to mice orally, stimulates a lower but significant degree of protection which apparently cannot be greatly improved with even twenty-fold doses given by this route. Oral administration to rabbits did not stimulate the formation of agglutinins or protective antibodies. A proprietary dissolved oral vaccine dispensed for prophylactic and therapeutic control of whooping cough failed to produce significant immunity in mice when given orally or parenterally under the experimental conditions employed. It also failed to stimulate protective antibodies or agglutinins when given by either route in rabbits. The serums of 3 human volunteers to whom the dissolved oral vaccine was given were compared with the serum of a subject who was naturally immune to pertussis as the result of clinical infection followed by prolonged laboratory contact with Haemophilus pertussis phase I. The dissolved oral vaccine also failed to stimulate protective antibodies or agglutinins in the human volunteers. There is nothing in these results to suggest that effective immunization against pertussis infection is likely to be achieved with oral administration of any of the existing vaccines.

Thorax, London

4:173-252 (Dec.) 1949

Extrapleural Pneumonectomy and Pleurectomy in Pulmonary Tuberculosis. I. A. Sarot.—p. 173.
*Pneumonoplasty: Periosteo-Plastic Pneumonolysis. F. R. Edwards.—p. 224.
Post-Operative Course of Pneumonoplasty and Its Management. J. H. Gifford.—p. 233.
Death from Cerebral Air Embolism During Thoracoscopy. P. P. Philip.—p. 237.
Transpleural Cardioplasty in Achalasia: Operation Results and Sequelae. H. B. Wulff and A. Malm.—p. 243.

Pneumonoplasty, a Periosteoplastic Pneumolysis.—Having performed some 500 thoracoplasties, Edwards felt that it should be possible to produce a similar permanent collapse of the lung without the destructive changes to the thoracic cage. Features that are aimed at in the collapse operations can be realized in an operation which he has termed "pneumonoplasty" in preference to periosteoplastic pneumonolysis. In this operation an extensive extrapleural pneumonolysis is performed, the only ribs resected being the fourth and fifth. The second to the sixth or seventh intercostal bundles with the rib periostea are mobilized, detached posteriorly and reattached to the side of the vertebral column at a lower level. The position of the bundles and periostea over the upper part of the lung is adjusted so that, when recalcification occurs reexpansion of the lung is prevented. Before this recalcification the lung is held down by the liquid which collects in the extrapleural space, and, if absorption of this liquid is too rapid, temporary air refills are established. Bailey in 1941 described an operation which he called

extraperiosteal pneumonolysis and which had certain similar features, but Bailey did not free the lung anteriorly, nor was any attempt made to reattach the posterior ends of the bundles at a lower level. Edwards describes his surgical technic and gives an account of the results obtained in the first 37 patients in whom his operation was performed. Primary sputum conversion was obtained in 28 of the patients, and in 2 additional patients it resulted subsequently. The operation has the advantage of being a one stage, permanent collapse operation, which causes no visible deformity and utilizes body tissues only.

Transactions Royal Soc. Trop. Med. and Hyg., London

43:239-350 (Nov.) 1949. Partial Index.

Malaria Among Prisoners of War in Siam ("F" Force). T. Wilson and J. A. Reid.—p. 257.
Studies on Protozoa: Part I. Metabolism of Leishman-Donovan Bodies and Flagellates of Leishmania Donovani. J. D. Fulton and L. P. Joyner.—p. 273.
*Role of Fat Ingested in Diet in Incidence of Sprue. J. C. Gilroy. —p. 303.
Observations on Haemoglobin Values in African Children. E. A. Beet. —p. 317.
Insulin-Hypersensitivity in Pellagrins and Its Significance. F. Mainzer. —p. 329.
Cerebellar Aspect of Nutritional Spinal Ataxia. T. J. Danaraj.—p. 343.

Fat in Diet and Incidence of Sprue.—Gilroy calls attention to the enormous increase in the incidence of sprue among troops in India and the Far East and contrasts this with the virtual absence of sprue among prisoners of war in Japanese hands, who were living under greater hardship and were suffering from more dysentery and intestinal infections than the soldier in the field. Sprue did not develop in these prisoners when they were repatriated and had a diet with a normal fat content. The difference in the incidence of sprue between these two groups is attributed to the difference in the dietary fat intake of the two groups: It is suggested that qualitative changes in fat metabolism, which may be a personal idiosyncrasy, may be important in determining the incidence of the disease. Sprue is described as comprising a predeficiency stage and a stage of conditioned deficiencies of the vitamin B complex. It is concluded that intestinal infections are an important factor in precipitating the predeficiency stage but that the disease will not enter the deficiency stage if the diet contains no fat.

Acta Medica Scandinavica, Stockholm

136:389-468 (Nov. 7) 1949. Partial Index

Significance of Mountain Climate in Treatment of Bronchial Asthma. F. Dencker.—p. 389.
Sequelae of Mumps-Meningoencephalitis. V. Oldfelt.—p. 403.
*Therapeutic Results of Massive "Sternosternal" Transfusions in Certain Cases of Medullary Aplasia and Acute Leukemia: Preliminary Report. E. Danopoulos.—p. 415.

Massive Sternosternal Transfusion in Medullary Aplasia and Acute Leukemia.—Danopoulos treated 4 patients, 3 men and 1 woman with aplastic anemia, and 3 patients, 2 men and 1 woman with acute myelogenous leukemia, with repeated transfusions of 20 to 60 cc. of blood aspirated from the sternum of a donor and reinjected into the sternum of the patient. The method is based on the concept that blood aspirated from the sternum may contain factors capable of stimulating production of various blood cells and their development into maturity. Cure was obtained by this method in the first 3 patients with aplastic anemia. The anemia of the first patient was due to generalized leishmaniasis and was aggravated by treatment with ethylstibamine. The second patient had syphilis, and his anemia was made worse by treatment with neoarsphenamine. The third patient had idiopathic aplastic anemia. The fourth patient with essential chronic aplastic anemia was given six series of sternosternal transfusions at intervals of several weeks, with five, four, three, one, two and three injections, respectively, by which the number of platelets was increased each time from between 20,000 and 50,000 to between 600,000 and 1,500,000 per cubic millimeter. This increase no longer occurred after a seventh series of four transfusions. Naegeli's leukemic hiatus disappeared from the bone marrow and from the systemic blood in 1 of the 3 patients with acute leukemia treated by sternosternal transfusions. The polymorphonuclear cells were increased from 9 to 70 per cent in the systemic blood of the second of these patients, but his bone marrow remained myeloblastic. Hematologic change could not be obtained in the third patient. Death could not be prevented by this treatment in any of the 3 patients.

Medizinische Klinik, Munich

44:1557-1588 (Dec. 9) 1949. Partial Index

New Diagnostic Possibilities of Histologic Study of Tissues Obtained by Puncture. A. G. Baur.—p. 1562.
Toxicology of Aminopyrine. E. Koch and A. Hübner.—p. 1571.
*Treatment of Pneumonia with Penicillin. H.-J. Jahn.—p. 1574.

Penicillin in Therapy of Pneumonia.—Jahn found that treatment with penicillin was effective in pneumonia and definitely superior to treatment with quinine and sulfonamide drugs. Of 23 patients with severe forms of pneumonia who were treated with penicillin none died. A total dose of 500,000 Oxford units was sufficient in 20 of the 23 cases. Usually 25,000 units were administered at intervals of three hours. Improvement in the general condition was generally evident within twenty-four hours after onset of treatment.

Mycopathologia, The Hague

6:315-420 (Aug. 30) 1949. Partial Index

Studies of Coccidioides Immitis (Seiles): Vegetative and Fertile Mycelium. P. Negroni.—p. 315.
Blastosporic Fungi of Sputum. P. Negroni and C. A. N. Daglio. —p. 330.
The Candida Species in the Sputum of Patients with Tuberculosis. V. M. Schwarting and C. E. Skinner.—p. 349.
Dependence on Weather of Incidence of Sporotrichosis. J. E. Mackinnon.—p. 367.
*Influence of Vitamins on Culture of Fungi. A. S. von Mallinckrodt-Haupt.—p. 394.

Influence of Vitamins on Culture of Fungi.—The investigations described by von Mallinckrodt-Haupt were concerned with the influence exerted by the addition of vitamins to the culture mediums of Trichophyton gypseum, Epidermophyton floccosum, Achorion schönleinii and other cutaneous fungi, also yeasts like Cryptococcus pararoseus and some fungi of the Actinomyces group. Thiamine, riboflavin, ascorbic acid and vitamins A and D were investigated. The aim of these studies was to produce an optimal culture medium and to determine differences in the vitamin requirements and thus possibly ascertain group-specific differences. Addition of vitamin solutions exerted a noticeable influence on the growth, buffering capacity and the formation of pigment; it also produced differences in the reaction of the culture medium. Vitamins A, D, C and B, produce acidification of the medium, whereas riboflavin produces alkalinization. Beyond this, the vitamins exert effects that do not depend on acidification or alkalinization. Although vitamins A and D produce an almost equal degree of acidification, they effect growth in exactly opposite directions. Vitamin A inhibits growth, particularly of the cutaneous fungi. Vitamin D increases the growth of all fungi. Thiamine promoted the growth of the dermatophytes, whereas riboflavin, which is generally regarded as the "growth" vitamin, seemed to exert no influence on the growth of fungi.

Revista Médica de Chile, Santiago

77:667-728 (Nov.) 1949. Partial Index

*Aneurysm of Abdominal Aorta with Perforation into Vena Cava. G. Dussaillant, E. Solari and A. Etcheberse.—p. 692.

Aneurysm of Abdominal Aorta.—Dussaillant and collaborators report the case of a woman, 62 years of age, who was admitted to the hospital in a state of cachexia, with acute anemia and signs of failing heart, with extensive edema suggestive of thrombosis of the inferior vena cava. There was pulsation in the arteries in the neck. The Durozies murmur was audible at the femoral artery and the lower epigastric region, which was the seat of a pulsating tumor. A diagnosis of aortic aneurysm with perforation into the inferior vena cava was made. The electrocardiogram showed preponderance of the left ventricle. Postmortem revealed an aneurysm of the lower portion of the abdominal aorta, in contact with and perforating into the inferior vena cava. Microscopic studies of the abdominal aorta and of the involved segment of the inferior vena cava revealed idiopathic cystic necrosis of the media.

Book Notices

THE REVIEWS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES AND DO NOT REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED.

Air Pollution in Donora, Pa.: Epidemiology of the Unusual Smog Episode of October 1948. Preliminary Report. By H. H. Schrenk, Harry Heimann, George D. Clayton, W. M. Gafafer, U. S. Public Health Service, Harry Wexler, U. S. Weather Bureau. Federal Security Agency, Public Health Service, Bureau of State Services, Division of Industrial Hygiene. Public Health Bulletin No. 306. Paper. $1.25. Pp. 173, with 90 illustrations. Supt. of Doc., Government Printing Office, Washington 25, D. C., 1949.

This report has a foreword by Oscar R. Ewing and Leonard A. Scheele, Surgeon General of the United States Public Health Service. There are also a few introductory remarks by J. G. Townsend, chief of the Division of Industrial Hygiene, and by the assistant chief, J. J. Bloomfield. The content of the brochure is divided into an introduction, biologic studies, atmospheric studies, which include many subheadings, such as a collection of the atmospheric pollutants, determination of the nature of these pollutants, a description of the various plant operations in the Donora area, as well as the consideration of the pollution from the domestic sources, steamboats, trains and automobiles. This portion of the brochure concludes with meteorologic investigations. The fourth division is devoted to a discussion of the cause of the episode, and the fifth division of the brochure is devoted to the summary and the recommendations.

The Donora catastrophe occurred during the last week of October 1948, when 20 persons died as the result of unusual atmospheric conditions. Several hundred more were affected. The Donora episode was the first of its kind to have occurred in this country, but it had been preceded by a fairly similar occurrence in 1930 in the Meuse Valley of Belgium. An unusually heavy smog covered the Donora Valley area, beginning Oct. 27, 1948. Because of the unusual weather conditions there was no wind present to move the dense contaminated air out of the valley; it therefore remained and was changed more by the industrial and domestic pollution. The first known death due to or attributed to the smog occurred on Wednesday, Oct. 27, 1948. This first death was followed rapidly by many others, and by Saturday night 17 known deaths had occurred. Several agencies immediately entered the picture and began studies; among these was the United States Public Health Service, which had a team of workers on the job by Wednesday, Nov. 3, 1948. After this initial contact by the United States Public Health Service, a team of 25 workers was organized under the direction of Dr. H. H. Schrenk, which began a five month study of the causes and various phases of this Donora smog episode.

It is impossible to discuss in detail this 173 page report, especially since much of the material is statistical. The survey included interview of a fairly large segment of the Donora population, in which the interviewers attempted to elicit details regarding the symptoms noted by the members of the area during the time of the intense smog as well as at other times. The members of the team attempted to avoid leading questions, but it is likely that an unknown percentage of the answers received were the result of suggestion or at least the impact of the then recent catastrophe. There has been a breakdown in the statistics as to incidence by the sex and race, by sex and age, by occupation and age, symptoms, signs and the like. The report includes descriptions of those who died from exposure to the smog as well as those who recovered. Likewise, it includes postmortem findings, roentgenograms and microscopic studies of the pulmonary tissue of persons examined post mortem. These reproductions are excellent.

On the base of this survey, investigators concluded that the following substances can be eliminated when considered as single causative agents, since, among other reasons, they are neither known nor suspected to be respiratory tract irritants: carbon monoxide, arsine, stibine, zinc oxide, ferric oxide, lead oxide, carbon, silicates and carbon dioxide. The elimination of the aforementioned substances left for further consideration the following substances: fluoride, chloride, oxides of nitrogen, hydrogen sulfides, cadmium oxide and sulfur dioxide together with its oxidation products. The investigating group concluded that fluoride was not found in sufficient concentration to be considered a serious contaminant. This opinion was also expressed as to the oxides of nitrogen, hydrogen sulfide and cadmium oxide. The final opinion reached was that, while no single substance was responsible for the October 1948 episode, the syndrome could have been produced by a combination, or summation of the action, of two or more of the contaminants. Sulfur dioxide and its oxidation products, together with particulate matter are considered significant contaminants. However, the significance of the other irritants as important adjuvants to the biologic effects cannot be finally estimated on the basis of present knowledge.

It is important to emphasize that information available on the toxicologic effects of mixed irritant gases is meager and that data on possible enhanced action due to absorption of gases on particulate matter is limited. Further, available toxicologic information pertains mainly to adults in relatively good health. Hence the lack of fundamental data on the physiologic effects of a mixture of gases and particulate matter over a period of time is a severe handicap in evaluation of the effects of atmospheric pollutants on persons of all ages and in various stages of health.

From this report by the United States Public Health Service on Air Pollution at Donora as well as surveys made in Los Angeles and elsewhere, it is evident that knowledge, control and elimination of atmospheric pollution require the combined teamwork of the industrial engineer, chemist, meteorologist, weather bureau and other allied groups. That these groups are functioning is also obvious, but it is sad to realize that the medical profession has lagged behind in its participation of the physiologic and pathologic studies of atmospheric contamination. The Donora report makes it clear that the deaths occurred among elderly cardiac and asthmatic persons. This, of course, is the dramatic and fatal effect. There is need to know whether there is an insidious effect on those living their lifetime under an industrially polluted sky. Statistical studies of death rates in industrial cities are not sufficient. The situation requires the best in investigative medicine. The report by the United States Public Health Service on Air Pollution at Donora is not completely informative or conclusive. It does comprise a basis for further study.

Variations in Aortic Pressure in Dogs During Exercise Under the Influence of Selected Drugs and by Aortic Insufficiency. By Arne Bhouby. Denne afhandling er af det lægevidenskabelige Faculteet ved Kjøbenhavns Universitet antaget til offentlig at forsvares for den medicinske Doktorgrad, 1948. Paper. Pp. 115, with 29 illustrations. Einar Munksgaards Forlag, Nørregade 6, Copenhagen, K, 1948.

This booklet describes the author's investigations from 1943 to 1947 on the subject of variations in blood pressure during work. Trained dogs were fitted with special masks for the measurement of oxygen consumption and were allowed to work by running at various speeds on a treadmill. Aortic pressures were recorded by means of an indwelling catheter fed through the right common carotid artery to the point of bifurcation of the brachiocephalic artery from the aorta. The outer end of the catheter was held in place by a protective plaster of paris collar. During the experiments, aortic pressure was continuously measured by means of converting the variations of capacitance of a condenser type manometer to a voltage waveform recorded photographically from an oscillograph.

Variations in the aortic pressure waveform, pulse rate and systolic and diastolic pressures were measured during various degrees of work in normal dogs, in dogs treated with amyl nitrite, glyceryl trinitrate, histamine, acetylcholine and epinephrine and in a dog with artificially induced aortic insufficiency. Several pages of data and pictures of the aortic pressure waveforms are presented, although in some cases the numbers of animals used are rather few to support the generalized conclusions drawn. The bearing of this investigation on the understanding of the complex mechanics of blood pressure regulation is briefly discussed. The highly restricted scope of this booklet will make it of interest to cardiovascular physiologists but to few others.

Histopathology of the Teeth and Their Surrounding Structures. By Rudolf Kronfeld, B.S., M.D., D.D.S. Third edition, edited by Paul E. Boyle, D.M.D., Professor of Oral Histology and Pathology, The Thomas W. Evans Museum and Dental Institute, University of Pennsylvania, Philadelphia. Cloth. $8. Pp. 514, with 404 illustrations. Leo & Febiger, 600 S. Washington Sq., Philadelphia 6, 1949.

The first edition of this book was published in 1933. The present revised edition retains the many fine features of the original text and some valuable new material. The text is liberally illustrated by material collected from many sources. Many of the illustrations are of the fine histologic material prepared by the late Dr. Kronfeld. All the illustrations are of excellent quality. The text is divided into 21 chapters and a section entitled "Addenda." The latter briefly covers several aspects of differential dental diagnosis.

The first three chapters are devoted to the dental anomalies and tooth calcification. Retrogressive changes in the dentin and pulp are discussed in the next chapter. The chapter on pulpitis unfortunately does not immediately follow. The impression may be gained from this that the retrogressive changes and inflammatory involvements of the dental pulp are widely separated and unrelated pathologic entities. The text suffers from several other unfortunate arrangements of material. For instance, so-called Vincent's disease, while listed in the classification of periodontal diseases, is not described under periodontal diseases but is discussed in a later chapter along with such unrelated material as discolorations and stains of teeth. The section on Vincent's disease is brief and inadequate.

The chapter on dental caries, written by Ned B. Williams, is particularly well done. Several chapters on periapical disorders and tissue changes following root canal therapy contain much excellent material. The nomenclature used in connection with the inflammatory periapical diseases is regrettable. The term "apical periodontitis," which is used to designate the inflammatory periapical diseases or apical pericementitis, is an inappropriate one. The term "periodontium" (from which "periodontitis" is derived) designates collectively the investing and surrounding structures of the teeth—the gingiva, the periodontal membrane and the alveolar bone. "Periodontitis" obviously designates an inflammatory involvement of these structures. Since the so-called periapical diseases do not involve the gingiva, they should not be designated "periodontitis." "Apical periodontitis" actually does not exist. The chapters on the periodontal diseases suffer somewhat from an unsatisfactory classification and outmoded nomenclature. For instance, such terms as "Vincent's disease," "pyorrhea alveolaris" and "pyorrhea pocket" are used.

The material on a wide variety of subjects, such as tissue changes due to excessive functional and orthodontic stresses, embedded teeth, cysts of dental origins, tooth fractures and tumors of the oral cavity, is well presented. This textbook is a valuable contribution to dental literature. It should be read by all dental students and practitioners.

Proceedings of the First Conference on Steroid Hormones and Mammary Cancer. Sponsored by the Therapeutic Trials Committee of the Council on Pharmacy and Chemistry of the American Medical Association, Chicago, Ill., April 4 to 7, 1949. Paper. $3.50. Pp. 205, with illustrations. American Medical Association, 535 N. Dearborn St., Chicago 10, 1949.

The participants in the conference were the members of the Subcommittee on Steroids and Cancer and two consultants in the field of radiology and one from that of pathology. In addition, there were 64 representatives from cooperating pharmaceutical firms and nine invited guests. The four day sessions were opened with an address by Dr. Ira T. Nathanson, who is the subcommittee chairman. After this there was a long statistical report by Dr. Walton Van Winkle Jr., Secretary, Therapeutic Trials Committee.

There are 28 tables in this report, the subjects of which include: subjective response to estrogen therapy (the estrogens considered were diethylstilbestrol, ethinyl estradiol, premarin,[9] estradiol dipropionate, dienestrol and dimethyl ether of diethylstilbestrol), the soft tissue lesion response to estrogen therapy, the clinical changes based on progress reports relative to soft tissue changes and bone, the responses to therapy with testosterone propionate, the subjective and objective responses to the estrogens according to age groups, the various responses according to dosages with particular reference to testosterone and diethylstilbestrol, the data according to the type of menopause, the responses in cases in which there had been prior irradiation therapy, the responses according to the duration of therapy, the objective response to testosterone according to the duration of the disease, the duration of improvement following testosterone therapy, the duration of improvement following estrogen therapy, the length of time between admission and death of patients treated with testosterone and those treated with estrogens and side effects of hormone therapy. After comments by the chairman there was general discussion, with some specific reports of various studies and experiences.

It is difficult to draw any valid and final conclusions from this detailed and voluminous report, but many questions are raised which can be solved only by painstaking investigations over long periods of time, which factor is most important in considering the results of such a disease as cancer. Irrespective of cure and objective improvement, the subject of relief of subjective symptoms which plague the cancer patient looms as most important.

The report should be of great value for those who are interested in this type of experimental cancer therapy. To facilitate its usefulness there are indexes of both authors and subject matter.

Migraine Cervicale (das zervikale Syndrom nach Halswirbeltrauma). Von Dr. med. et Dr. sc. biol. Werner Bärtschi-Rochaix, Privat-Dozent für Neurologie an der Universität Bern. Cloth. Price, 21.80 Swiss francs. Pp. 188, with 51 illustrations. Hans Huber, Marktgasse 9, Bern 16; distributors for U. S. A. and Canada: Grune & Stratton, Inc., 381 4th Ave. New York 16, 1949.

In 1943 the author's attention was called to a case of peculiar post-traumatic complaints referable to the head, which did not appear to be the result of concussion. He saw 33 such cases between 1943 and 1947. The study of these cases is the basis of this monograph.

The syndrome of "cervical migraine" can be produced not only by trauma to the neck and cervical spine but fundamentally by any trauma to the head associated with flexion, with or without brain damage. Particularly forces striking the skull asymmetrically provide the necessary conditions. Therefore it is advisable to watch for lesions to the cervical vertebrae in patients with head trauma.

Symptoms of pain and paresthesias referable to the head are always present in cervical migraine. In the majority of cases they are characterized by unilateral paroxysms, rarely by dull occipital headaches. Sometimes they are brought on mechanically. Usually there is tenderness at the occiput and disturbances in sensation—more commonly hyperalgesia than hypalgesia—in the dermatome of the first and second cervical vertebrae.

All patients suffering from cervical migraine show a more or less pronounced "nuchal derangement." Most pronounced are unilateral neck pain, selective limitation of motion and crepitation. Objectively, there is tenderness to pressure over two spinous processes, as well as pain and limitation of motion specially for lateral bending and rotation, more rarely for flexion and extension. Distal symptoms can often be elicited by functional examination of the cervical spine.

Approximately one third of the patients suffered from unilateral tinnitus. In some of them it was brought forth or increased by certain movements of the head. Twice a change in the audiometer curve could be shown under the influence of extreme positions of the head. Subjective vertigo is the rule in cervical migraine. It is usually dependent on certain positions or motions of the head and is of brief duration. About half the patients complain of attacks of brief flickering scotomas and foggy vision, usually paralleling attacks of headache and vertigo. Radicular symptoms represent a secondary syndrome. Pain and paresthesias in the upper extremities are more common than disturbances in sensation. Such complaints are often diagnosed as neuritides and treated as such for years.

Roentgen observations of the 33 cases studied are given in detail with illustrations. Radiologic studies are considered important for diagnosis in combination with clinical findings. Deformities of one of the "uncinate processes" of the cervical vertebrae are commonly found in late cases. (The anatomy of these "uncinate processes" is discussed in detail.) Hyperostotic changes in this region involve most easily the vascular and nervous elements coursing through the intervertebral foramen and vertebral canal. These are in first line the vertebral artery,

which is particularly important for the labyrinthal artery, the posterior inferior cerebellar artery and the vertebral nerve originating from the inferior cervical ganglion. Arguments are presented for a vascular and for a neural theory as the basis for the syndrome of cervical migraine.

The course of the disease is analyzed by the author. Most commonly the syndrome is observed in the first year after injury, usually in the second or third quarter-year. If the disease begins sooner or immediately after the injury, then there is usually initial severe cervical trauma, while cases of head trauma show a slower course. After gradual or abrupt onset the course is usually slightly intermittent or stationary. After one or more years part of the subjective symptoms usually regress. Thus, the development is biphasic: initial severe stage, often complicated by head trauma, noncharacteristic intermediate stage and occurrence of the pure form of cervical migraine as typical late complication.

The differential diagnosis includes the postconcussion syndrome, lesions in the posterior fossa of the skull, functional diseases of the ear and labyrinth, idiopathic migraine and occipital and orbital neuralgia of traumatic or toxic-infectious origin. Therapy is discussed briefly. Medications are given for relief. Physical therapy, particularly heat, is often not well tolerated. Roentgen therapy often produces favorable results. Paravertebral infiltration with procaine hydrochloride usually gives relief. Mechanical treatment by traction or head and neck fixation should be tried in each case. An appendix gives a summary of the case histories.

Akute Infektionskrankheiten und Hochdruck: Untersuchungen und Betrachtungen zum Problem der postinfektiösen Hypertonie. Von Otto Heinrich Arnold, Dr. med. habil., Medizinische Klinik der Universität Heidelberg. Half-cloth. 9.60 marks. Pp. 130, Georg Thieme, Diemershaldenstrasse 47, (14a) Stuttgart O; Agents for U. S. A.: Grune & Stratton, Inc., 381 4th Ave., New York 16, 1949.

This book offers summaries of 46 cases of acute infectious diseases (scarlet fever, diphtheria, angina tonsillaris, rheumatic fever and others) in which particular attention was given to the blood pressure and urinary findings during convalescence. On this basis, and after reviewing some of the recent extensive literature on the subject, Arnold concludes that infections are generally followed by oscillations of several regulatory mechanisms of the body. These oscillations are sometimes rhythmic, sometimes irregular and too varied to be classified. The behavior of the blood pressure is likewise varied, and classifications of hypertension made for clinical convenience should not be assumed to have any ulterior significance. It has become doubtful, according to Arnold, whether inflammatory changes in the kidney are causally related to hypertension, and clinical classifications of hypertension do not coincide with hemodynamic reaction types. This last statement is, unfortunately, not based on any enumeration of possible combinations or any calculation of probabilities, and without statistical considerations of that sort it is impossible to determine the validity of such classifications as those proposed, for instance, in connection with the cold pressor test. The book lacks an index but has an excellent table of contents. Reading is facilitated by space-typing the summarizing sentences wherever they occur in the text. There also is an extensive bibliography.

Leitfaden der Blutmorphologie. Von Lydia Schudel Hämatologische Laboratorin der Medizin. Universitätsklinik Zurich. [In German, English and French.] Sixth edition. Paper. Price, $3. Pp. 47, with 14 illustrations. Georg Thieme, Diemershaldenstrasse 47, Stuttgart-O; imported by Grune & Stratton, Inc., 381 4th Ave., New York 16, 1947.

This book was designed to provide a more or less standard morphologic basis for the identification of blood cells as seen in dry fixed films. It is unique in that all textual material and legends are published in German, French and English. The latter is fairly free from errors. Various technical procedures are outlined and colored plates used to illustrate the genesis of blood cells and platelets. Typical fields of blood cells seen in most of the blood dyscrasias are shown and their diagnostic characteristics listed. It is to be regretted that reproduction of the colored plates in this edition is not as good as that in former ones, which probably is due to an inferior quality of paper. For some unknown reason, blood pictures of the leukemic reticuloendothelioses and monocytic leukemia have not been included. Bone marrow preparations have been omitted because it was felt that the interpretation of these was beyond the scope of a practical manual and excellent monographs on this subject are already available. This book should be of service either to physicians or to technicians beginning the study of hematology.

Microbiology. By Florence C. Kelly, M.S., Ph.D., Associate Professor of Bacteriology, The University of Oklahoma, School of Medicine, Oklahoma City, and K. Eileen Hite, Ph.D., M.D. Introduction by G. M. Dack, Ph.D., M.D., Professor of Bacteriology, The University of Chicago. Cloth. $6.50. Pp. 502, with 185 illustrations. Appleton-Century-Crofts, Inc., 35 W. 32nd St., New York 1, 1949.

The authors of this book have presented a comprehensive treatise in microbiology with special orientation toward the role and relationship of micro-organisms in pathogenic processes in man. The first section describes the biology of the protozoa, algae, fungi, bacteria, rickettsia and viruses. It includes sections on cytology, classification, bacterial physiology, interrelationships of micro-organisms, microbial populations and their control. Methods for the study of micro-organisms are given, including microscopy, sterilization, laboratory equipment and culturing, isolation and identification methods. The second part deals with the role of micro-organisms as pathogenic agents in parasitism and disease, immunity, epidemiology and control of disease. A well selected reading list of summarizing references is given, as well as an appendix of technical methods and reagents used in bacteriology, including preparation and use of stains, culture mediums and biochemical tests.

In the authors' own words, "This textbook is intended for the student who will require a comprehensive knowledge in the fields of general and pathogenic microbiology." This is probably a student of general science or of allied scientific fields who seeks a speaking acquaintance with, or general introduction to, the nature of micro-organisms and their role in human disease. It may well be used as a textbook for an introductory course in microbiology. For the medical student, the graduate student and those involved in teaching and research in microbiology, it is lacking in detail and offers only a superficial handling of a vast field. Since an amazing wealth of information has been covered in this book of comparatively few pages, the coverage must represent, at best, only a good compilation of abstracts of more thorough treatises on the same subjects. The reader is spared from all controversial issues, but in so doing the conservative viewpoint of the authors has led to many statements which lack discrimination.

Ionization Chambers and Counters: Experimental Techniques. By Bruno B. Rossi, Professor of Physics, Massachusetts Institute of Technology, and Hans H. Staub, Professor of Physics, Stanford University. Cloth. $3.25. Pp. 343, with illustrations. McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1949.

This book consists of volume 2 of the Experimental Techniques division of the National Nuclear Energy Series. As with their accompanying volumes, "Electronics," by William C. Elmore and Matthew L. Sands, and "Miscellaneous Physical and Chemical Techniques," by Alvin C. Graves and his co-workers, these volumes were written mainly as laboratory manuals intended for use by the staff of the Los Alamos Laboratory.

With this in mind it is seen that the subjects covered do not pertain primarily to problems usually encountered in the nuclear detection laboratory. The first four chapters deal with the theory of ionization and the basic theory of ionization chambers. Various filling mixtures are considered from the standpoint of drift velocity, mean agitation energy and recombination. The theory of operation of constant ionization chambers as well as pulsed ion chambers is taken up in some detail. This is followed by a discussion of gas multiplication in general, along with some specific data for various filling mixtures. Conditions which affect pulse height are enumerated, and curves are presented.

In the last five chapters, typical detectors used at the Los Alamos Laboratory are described in both operational and engineering detail, including beta ray, gamma ray and roentgen ray detectors, alpha particle detectors, detectors for neutron recoil, detectors of (n, γ) and (n, p) reactions and fission detectors.

The volume does not lend itself to widespread use but is primarily a reference manual for construction of detection apparatus

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

INFECTIOUS MONONUCLEOSIS

To the Editor:—My 22 year old son has had pharyngitis, mild fever and slight cervical adenitis for ten days. I suspected infectious mononucleosis, but the blood picture was not characteristic until today. Can you suggest any treatment?

M.D., New Jersey.

ANSWER.—There is no satisfactory treatment for infectious mononucleosis. Controlled clinical trials of penicillin, aureomycin and chloramphenicol have not shown these agents to be of any benefit in shortening the duration of the disease. In chronic recurring mononucleosis, chloramphenicol, 3 Gm. daily, appears to aid in terminating the acute attack but does not eradicate the infection. Bedrest during the febrile period and restricted activity during the stage of fatigue appear to hasten recovery. The diet should be rich in vitamin B complex. The patient should be watched for possible secondary infection, and penicillin may be used should this occur.

TRANSLUCENT DISCHARGE FROM BREASTS

To the Editor:—A woman 21 years of age, seven months post partum, has noticed a translucent white discharge from the breasts at the time of menses for two months. She did not nurse her baby, and lactation was suppressed immediately after delivery. There are only a few drops of secretion from each breast, and it has not been blood tinged. With the last episode, there was also decided tenderness of both breasts near the axillas. On examination, there are no masses in either breast, but there are some fairly large axillary nodes on the right. Menses have been normal. What is the most likely explanation?

M.D., Idaho.

ANSWER.—The fact that the translucent discharge from the breast occurred for the first time five months post partum in a woman who did not nurse her baby at any time would suggest that the cause of the discharge is totally unrelated to the previous pregnancy, although the possibility of bilateral galactocele cannot be overlooked. Qualitative examination of the material expressed from the nipple would be instructive, as the discharge should contain considerable fat if the underlying cause is galactocele. It is suggested, also, that this material be examined by a competent cytologist in an effort to determine the presence or absence of intraductal papillomas. Although the enlarged lymph nodes on the right are probably the result of inflammation, one is not justified in assuming that they are unrelated to a possible malignant lesion in the breast. The most reasonable lesion to incriminate would be a malignant intraductal papilloma; for this reason, removal of one of these large nodes would be indicated in order that adequate microscopic examination of the tissue might be made. If this proves to be inflammatory the decision on further treatment will have to depend on many factors which are not included in the inquiry. The possibility of malignancy must be entertained even in the absence of a palpable tumor. If the discharge should persist in spite of conservative treatment, every effort should be made to exclude malignant lesions from the diagnosis.

MONOCULAR EXOPHTHALMOS

To the Editor:—In a woman aged 44 there developed a monocular exophthalmos measuring 25 mm. in one eye and a palsy of the inferior rectus muscle in the other, following a mild thyrotoxicosis (basal metabolic rate plus 30 per cent) and use of propylthiouracil. The basal metabolic rate has been maintained at about zero for ten months with 100 mg. of propylthiouracil daily. Would thyroidectomy enhance the remission of ocular signs and resulting diplopia and disfigurement?

B. F. Glowacki, M.D., Detroit.

ANSWER.—A thyroidectomy may or may not cause the exophthalmos to diminish. Exophthalmos sometimes appears first when the basal metabolic rate is reduced to a subnormal level by treatment of any kind. Its course is variable. In this particular patient, it may become worse, remain stationary or gradually become less. It would be proper to continue to treat the patient medically with propylthiouracil or perform a thyroidectomy after adequate preparation. The decision should depend on what seems best for the patient.

CONGENITAL HEMOLYTIC ANEMIA

To the Editor:—A 15 year old boy has had intermittent jaundice apparently since he was born. The boy is normal in every other respect. He has not had other illnesses or surgical treatment. These bouts of jaundice come on every two or three weeks or every two or three months; sometimes there is a slight fever. Laboratory tests revealed the urine to be alkaline, specific gravity 1.016, plus-minus albumin, negative reactions for sugar and bile, occasional squamous cells, 0.5 Gm. hemoglobin, 2,960,000 red blood cells, 6,200 white blood cells, 3 per cent basophiles, 1 per cent eosinophils, 2 per cent stab forms, 51 per cent segmented forms, 43 per cent lymphocytes, 121,340 platelets per cubic millimeter, color index 0.9, coagulation time 3 minutes 45 seconds, bleeding time 1 minute 25 seconds, 125 mg. cholesterol, icterus index 25 units, negative Van den Bergh direct reaction, van den Bergh indirect 9.4 mg., sulfobromophthalein retention in liver function test, 60 per cent at 5 minutes, 15 per cent at 30 minutes and 15 per cent at 60 minutes. Urobilinogen reaction was negative. Anisocytosis and poikilocytosis were present. The fragility test showed an initial 0.46 per cent, 0.36 per cent on completion. Cephalin flocculation was 2 plus. The Rh factor was positive, group II. Prothrombin time was 51 per cent of normal (49 seconds, control 25 seconds); after administration of vitamin K the prothrombin time was normal (34 seconds, control 34 seconds). Cholecystograms were normal. What else can be done to find the pathologic reason for this jaundice? I have in mind congenital stricture of the bile duct.

E. H. Krueger, M.D., Appleton, Wis.

ANSWER.—Against the diagnosis of congenital anomaly of the bile ducts are the acholuric jaundice, anemia and negative direct van den Bergh reaction. Results of liver function tests are relatively normal, excluding the possibility of parenchymal liver disease as the cause of anemia and jaundice of this degree and duration. The intermittent jaundice since childhood, with fever, negative urine bile reaction, normochromic anemia and negative direct and positive indirect van den Bergh reaction strongly suggest hemolytic anemia. One should know whether the spleen is palpable, and the family history should be investigated for jaundice. In hemolytic anemia there is pronounced peripheral blood reticulocytosis and increased red cell formation in the bone marrow. One would expect quantitative fecal urobilinogen studies to show decided elevation. If the acquired form of hemolytic anemia can be ruled out by the absence of a history of exposure to lead or other toxins and there is no infection, the anemia can be considered primary. A test for sickle cells should be done, especially if the patient is Negro. A repeat red cell fragility test should be done with a normal control. In congenital hemolytic anemia there is increased susceptibility of the red cells to hypotonic sodium chloride solution; whereas in Cooley's anemia (which seems to occur only in Mediterranean stock) there is decreased susceptibility to hemolysis of red cells in hypotonic sodium chloride solution. The data given suggest congenital hemolytic anemia, and, if the additional tests bear this out, a splenectomy would probably bring about a cure.

ARTIFICIAL MENOPAUSE IN A YOUNG WOMAN

To the Editor:—A girl aged 19 had an oophorectomy in December 1941. About eighteen months later she had various symptoms common to an artificial menopause, especially vertigo. Injections of 2,000 I. U. of estrogen twice a week eliminated the objective and subjective signs. I have tried to substitute the oral administration of diethylstilbestrol for the injections, but the patient insists on a resumption of the injections which alone seem to give relief. Will the constant use of estrogens be of benefit and of no danger to the patient?

F. Fortunato, M.D., New York.

ANSWER.—Estrogens should be taken orally whenever possible to save the patient time and money. Cases which really require parenteral administration are infrequent if the physician takes the time and trouble to readjust the dosage according to individual needs. Not infrequently, one must use a product other than the one first prescribed. As a rule, estrogens should be taken once daily, preferably at bedtime, usually for a period of not more than ten days at a time, followed always by a rest period, preferably of not less than two to four days.

Estrogens should always be given interruptedly, rarely in an amount sufficiently large or for a period sufficiently long to induce bleeding or annoying congestion of the breasts. In physiologic dosage the carcinogenic hazard warrants avoidance of estrogens only in selected cases. Patients with endometriosis, those with myomas of notable size and those with excessive or inexplicable uterine bleeding should not use estrogens.

In response to the specific query about the length of time the continued (interrupted) use of estrogens may be permitted: With permanent cessation of symptoms, medication should cease. There is little hazard in prolonged use of estrogens in moderate dosage, sufficient to relieve symptoms, in those cases in which estrogens are not specifically contraindicated.

Medication over a period of many years, should be permitted only under the supervision of a qualified physician. Occasionally one encounters patients who demand or require massive dosage: in such instances there are usually psychologic or other reasons for discontinuance of estrogens and recourse to other therapy.

ARTIFICIAL INSEMINATION

To the Editor:—One of my patients is sterile. His wife is anxious to become pregnant but does not know of her husband's sterility. The husband would like to have her artificially inseminated without her knowledge. What are the medicolegal aspects?

M.D., Pennsylvania.

ANSWER.—Artificial insemination would be illegal without the full knowledge and consent of the wife as well as of the husband. The husband in this case knows that he is sterile. Undoubtedly the diagnosis of male sterility was made by a consulting physician. What would there be to prevent the physician from testifying to the husband's sterility in court, if the latter should later wish to divorce his wife on charges of adultery? If there were no written evidence except the husband's word, the wife would unwillingly find herself in an untenable position. From the moral point of view, in these circumstances the physician would have acted unethically and would be open to the charge of fraud with respect to the wife.

Under no conditions, therefore, should artificial insemination be resorted to without the full knowledge and written consent of both husband and wife, for the protection of the physician as well as that of the wife and husband. Aside from these considerations no reputable physician would be guilty of such a proceeding.

CAUSES OF GYNECOMASTIA

To the Editor:—A boy 15 years of age has gynecomastia. Genitalia and development are otherwise normal. What is the usual cause of this condition and is there any effective treatment? There is no gross indication of pituitary or adrenal tumor.

M.D., California.

ANSWER.—Gynecomastia in a boy 15 years of age may be associated with any of the following conditions: (1) hypogonadism, which disturbs the estrogen-androgen ratio; (2) excess production of estrogen, which is usually associated with inadequate development of the secondary sex characteristics of the male; (3) administration of estrogen, and (4) starvation. Gynecomastia is a complex disturbance and may be produced in a variety of ways. It would be desirable to determine the estrogen production of this patient. The treatment depends on the cause, but once breast tissue has developed it is difficult to make it disappear with medical measures. If the gynecomastia is associated with obesity, reduction in weight may cause the size of the breasts to diminish. If there is a considerable amount of breast tissue present and the gynecomastia is disfiguring, it may be desirable to perform a bilateral mastectomy, taking special precautions to preserve the nipples and areolas.

TOXINS FROM TREPONEMA PALLIDUM

To the Editor:—Does Treponema pallidum produce a toxin? Are the changes in syphilitic organs of such kind that they could suggest contribution of a toxic factor, e.g., early syphilitic hepatitis, early syphilitic hepatitis, gumma and the degeneration of the brain cells in paresis?

Charles Segal, M.D., Sydney, Australia.

ANSWER.—There is no definite evidence of toxin production by Treponema pallidum. However, there is some evidence, both clinical and experimental, that certain of the late manifestations of syphilis, notably the gumma, are allergic phenomena due to sensitization of the infected person to his own spirochetes. This does not apply, however, to the nephrosis and hepatitis of early syphilis, nor, in all probability, to the degeneration of the brain cells in paresis.

REMOVING OIL FROM SYRINGES

To the Editor:—After giving penicillin in oil I have considerable trouble in getting all traces of the oil out of the syringe. How can this be done?

M. J. Pond, M.D., Staten Island, N. Y.

ANSWER.—Any fat solvent (acetone, chloroform, ether or cleaning fluid) will remove traces of oil from the syringe and needle. Acetone is recommended because it is water miscible and final cleansing with water can be done easily. The fat solvents have a deleterious effect on rubber and should not come in contact with it.

CHRONIC ARACHNOIDITIS

To the Editor:—A car in which a man aged 56 was sitting was struck in the rear without the man apparently sustaining any direct injury. In a week, however, he complained of pain over the left temporal area and visual disturbances and a left sixth nerve paralysis suddenly developed. This had gradually begun to improve, but four months later the sixth nerve on the right side became involved and in another three months there was paralysis of the right third nerve (ptosis of upper lid and proptosis). At about this time impairment of hearing on the right and a tendency to somnolence were noted. Roentgenograms, electroencephalograms and laboratory studies were not revealing. Treatment with high potency vitamin-B preparations, neostigmine, bromide iodides, rutin and injections of mercury compounds did not effect improvement. When he was examined by another neurologist, palsy of the disk, positive Rhomberg and absent abdominal reflexes were noted. He was then hospitalized. With the exception of some elevation of the fluid protein all the studies, including ventriculograms, revealed essentially normal conditions. The otologist ruled out a nasopharyngeal tumor but found the right nerve gone. At about this time improvement in the elevation of the ptosed lid and in movement of the ocular muscles was noted. However, in view of the suspicion of a lesion of the brain stem, 10 radiotherapeutic exposures were given (1,800 r total) before the patient was discharged. At present (six months after hospitalization) the left eye is normal. The right shows decided impairment of vision (fingers at 5 feet (152 cm.)) with thinning of retinal vessels but no prominence of the disk. Vision in this eye a year ago was 20/100. The lid is now only about 50 per cent ptosed and can be elevated. Recent skull roentgenograms were interpreted as normal. The general condition of the patient is good except for some anxiety reaction. Could the original trauma be considered an etiologic factor?

M.D. New York.

ANSWER.—Trauma is an unlikely factor in this instance because of the absence of general symptoms, especially headache, immediately following the accident. Tumor can be ruled out by the spontaneous improvement which has occurred. The lesions are too numerous to be accounted for by an aneurysm. This leaves as the best explanation a diffuse inflammatory process. It can be assumed that the possibility of syphilis has been investigated and ruled out. The most likely diagnosis appears to be a chronic, widespread arachnoiditis involving the base of the brain, greater on the right side than on the left.

PAINTING THE BODY FOR A PLAY

To the Editor:—One of my patients used a paint mixed with lard to cover his entire body for a play. The name of the paint is "Verve Rich-gold-Brilliant" (W. P. Fuller & Co.) I would like to know what ill effects this might cause.

W. F. Holmes, M.D., Walla Walla, Wash.

ANSWER.—Most gilt paints are made of finely divided metal particles suspended in such a vehicle as amyl acetate. Yellow brass is one metal, and fine division is procured by long pounding. The application of any paint in such a vehicle as actually seals off the skin's openings distinctly would interfere with skin respiration and fatality might arise. The application of ordinary fats to the skin's surface does not preclude skin respiration. Distance swimmers frequently resort to a coating of fat to facilitate slipping through the water and occasionally to prevent excessive heat loss. Regularly many persons apply without ill effects oils to their bodies because of skin dryness. In the present instance it is improbable that any content of the metal itself, such as lead as an impurity, would have entered the body. The fatty acids of lard in the presence of copper would in time produce green discoloration, but this is of little consequence. However, this practice is not regarded as being sensible.

PANTERIC®

To the Editor:—I am interested in obtaining information on panteric® tablets in the treatment of diabetes because the drug was recommended to my brother in place of insulin. I have never heard of its use in diabetes.

M.D., California.

ANSWER.—Panteric® is the Parke, Davis & Company name for their brand of triple strength pancreatin. A tablet of 0.324 Gm. is said to be equivalent of 0.975 Gm. of pancreatin U. S. P. Pancreatin is presumed to contain the fat-splitting enzymes secreted by the pancreas into the duodenum. This product is not offered for the treatment of diabetes; the Parke, Davis & Company catalog gives as indications: treatment of indigestion and food allergy due to pancreatic hypofunction and celiac disease associated with pancreatic insufficiency.

Insulin, the internal secretion of the pancreas, is the only effective substance for the treatment of diabetes, and only in rare instances is the digestion of fats in the intestine abnormal in patients with diabetes. Therefore panteric® tablets would not be of benefit in the treatment of patients with diabetes.

VERNIX CASEOSA

To the Editor:—What is the chemical composition of vernix caseosa? Do certain animals have a similar protective coat during their stay in the uterus?

M.D., New York.

ANSWER.—The subject of vernix caseosa needs further investigation. Textbooks of human embryology state that this "cheesy varnish" results from the desquamation of the epitrichium with an admixture (during later fetal life) of the fatty secretion of the sebaceous glands. It has been assumed that the vernix caseosa guards the delicate fetal skin against the possible macerating effect of the amniotic fluid. There is, it seems, no accurate information available regarding the exact chemical composition of the vernix. No mention is made in veterinary books about the existence of a similar "protective" coat on the fetuses of domestic animals, nor have the veterinarians who were questioned seen it or heard of its presence—even on newborn pigs, who appear to be quite as hairless at first as the human fetus.

KERATOSIS OF NIPPLES

To the Editor:—A woman aged 39 at the age of 19 developed bilaterally warty-like growths of both nipples. No discharge was noted. The biopsy showed keratosis of the nipples. Eight years ago she became pregnant, and the growths disappeared, but soon after the pregnancy ended they returned. Twenty-seven months later she again became pregnant, and the lesions disappeared only to reappear after a delivery. The patient was given estrogen therapy, and once more these verruca-like structures disappeared. However, endometrial hyperplasia with menorrhagia developed on two different occasions and required curettement to stop the flow. The patient was again curetted six months ago, and estrogen therapy was discontinued. The symptoms and menorrhagia abated, and menstruation is now normal. However, the nipples again show the same verruca-like growth. There has been some sloughing of the center of these growths; the mamillated lesions seem to have a grayish coat on them. There are no regional or generalized lymph nodes. The breasts are undeveloped, with slight elevation of ducts under the areola. No masses can be felt in the breast tissue. These verruca are now adherent and freely movable over the underlying tissue. The woman also has a pea-sized polypoid subserous fibroid of the uterus. Could this be Paget's disease? What course of therapy is suggested?

Charles M. Horvath, M.D., Phoenix, Ariz.

ANSWER.—Keratosis of the nipple should be considered a precancerous lesion as is keratosis in any other part of the body. The original biopsy seems to rule out Paget's disease; however, another biopsy of both nipples seems indicated to be sure no pagetoid cells are present. Should biopsy confirm the original diagnosis of keratosis, roentgen irradiation is worthy of trial. A local radiologist should be consulted for factors of therapy. Cauterization of the nipples would be the next step. Anything more radical is contraindicated unless biopsy reveals Paget's disease or active malignant change.

ULCER AND DERMATITIS OF LEGS DURING WORLD WAR II

To the Editor:—Are data available on the incidence of ulcer and of dermatitis (or eczema) of the lower legs among troops during World War II? Only one reference on this disease and its comparison with other diseases among troops was found (Pillsbury, D. M., and Livingood, C. S.: *Arch. Dermat. & Syph.* 55:461, 1947).

C. M. Hanselmann, M.D., Germany.

ANSWER.—Data on the incidence of ulcerative lesions of the leg are not available, because many patients with such lesions were not hospitalized. However, reports in the Surgeon General's Office show that the incidence among American troops during World War II was high in all tropical areas, including North Burma, the Southwest Pacific area and the Philippine Islands. In some divisions more than 50 per cent of personnel had some type of ulcerative lesion during periods of active combat. The incidence was relatively high in the North Africa area but lower than that recorded for the tropical theaters. The incidence of cases of cutaneous leishmaniasis was as much as 15 or 20 per thousand per year in the Iraq-Iran area. Hot, humid weather, inadequate bathing facilities, insect bites and increased exposure to minor injuries of the skin contributed to a decided increase of ulcerative lesions. Some lesions in American troops in the Southwest Pacific, Philippine Islands and the India-Burma theater were due to diphtheritic infections; at one time 15 per cent of one combat regiment in the North Burma area were hospitalized for six weeks to nine months.

Data accumulated during World War II on the incidence of eczematous dermatitis of the lower legs among American troops are comparable to those for ulcerative lesions of the leg. It is now well established that the use of quinacrine was a causative factor. In some divisions in combat in tropical theaters the incidence of eczematous dermatitis of the leg was 70 to 80 per thousand. Eczematous dermatitis of the legs was one of the important causes of disability in all tropical theaters. The incapacitation due to this condition was prolonged in most instances, and a high percentage of these patients were evacuated.

CORNEAL ULCERS

To the Editor:—Kindly inform me regarding chronic, intermittent corneal ulcers. My patient has them at approximately monthly intervals, and they have been resistant to therapy. She has received vitamins by mouth and various eye ointments. Other physical ailments are not observed.

F. W. Lehmann, M.D., Hartford, Wis.

ANSWER.—Recurrent corneal ulcers may be difficult to treat successfully. The lacrymal sac should be irrigated, the adequacy of the lacrymal secretion measured by the Schirmer test and lesions, such as wild cilia, tumors of the lid margins and inflammatory and degenerative irritations of the conjunctiva, removed. The eyes should be protected from irritating chemicals and fumes, including cigaret smoke.

Recurrent corneal erosion may follow a minor ocular injury or occur spontaneously. Healing usually is accomplished within twenty-four or thirty-six hours. Further recurrences may be prevented by complete destruction of the affected area by application of tincture of iodine neutralized with cocaine.

Herpes simplex corneae (dendritic keratitis) may recur frequently or be followed by keratitis metaherpetica. Local treatment with iodine is being supplanted by application of aureomycin. Marginal ulcers may accompany many systemic, dermatologic and local eye inflammations, and treatment must be directed toward the cause.

If the lacrymal secretion is deficient, irritative keratoconjunctivitis may develop. The condition is seen most frequently in women after the climacteric and may be associated with defective salivary and sweat gland secretion and with arthritis. Treatment is directed toward prevention of corneal drying with artificial tears or bland oils.

STRABISMUS

To the Editor:—A boy 6 years of age has had crossed eyes four years, since a severe case of whooping cough; he is otherwise normal. His strabismus is internal in the left eye when he looks close by, and his eye becomes normal when he looks away. For three years he has worn glasses with positive lenses. There are no lesions in the fundus and no astigmatism. What is the etiologic basis of this disorder, its treatment and the possibility of recovery?

G. Arana Perez, M.D., Colombia, South America.

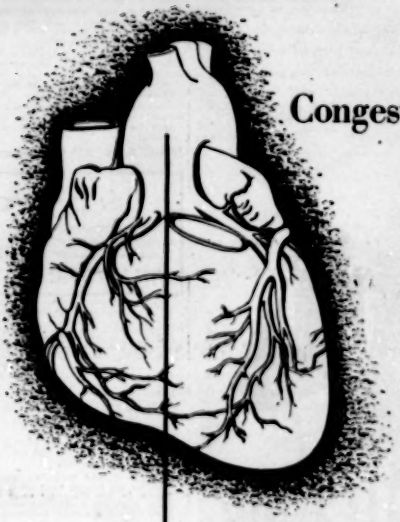
ANSWER.—The description of the strabismus indicates that it probably has an innervational origin and is due to the hypertonicity of the convergence center. It is doubtful whether whooping cough is an etiologic factor. It is assumed that the vision is normal and equal in each eye, that there is no decided anisometropia and that no anatomic muscular anomalies such as abnormal development or attachments are evident. It is recommended that a careful refraction with the eyes under complete cycloplegia be done. While the cycloplegia is wearing off the child should start to wear constantly lenses giving full correction. After six months surgical intervention should be considered if this treatment is unsuccessful. The surgical procedure of choice is a recession of one or both ocular muscles.

METASTASIS FOLLOWING MASTECTOMY

To the Editor:—A woman 40 years of age had a radical right mastectomy in January 1948. Metastases were not found at that time but have been widely spread in bones since May 1949. Treatment with testosterone injections and irradiation of affected bones since the beginning of September 1949 have effected remarkable improvements. Surgical castration is planned for the near future. The patient is sensitive to roentgen rays. After the castration will it be necessary to continue with the injection of testosterone? Should the operation be procrastinated and for how long?

M.D., Pennsylvania.

ANSWER.—Immediate castration would be indicated in this patient. The testosterone therapy should be continued after operation, the dosage being increased to 100 mg. three times weekly until symptoms of virilism appear. In addition to its organic antagonism to estrogenic substances, testosterone has a remarkable protein-sparing action, which should help maintain the nutrition of the patient. Further bone metastasis or metastasis to other organs of the body may be expected.



Congestive Heart Failure...

"The most striking effects were seen in cases of hypertensive heart failure. . . . There is a rapid fall in the raised right auricular pressure with a conspicuous increase in the output of the heart."[1]

SEARLE

AMINOPHYLLIN*

—improves cardiac failure by effecting an improved heart action with increased blood flow, and eliminating edema fluids by the renal route.

Searle Aminophyllin is indicated in paroxysmal dyspnea, bronchial asthma, Cheyne-Stokes respiration and selected cardiac cases.

ORAL—PARENTERAL—RECTAL DOSAGE FORMS

*Searle Aminophyllin contains at least 80% of anhydrous theophylline. G. D. Searle & Co., Chicago 80, Illinois.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

1. Howarth, S.; McMichael, J., and Sharpey-Schafer, E. P.: The Circulatory Action of Theophylline Ethylene Diamine, Clin. Sc. 6:125 (July 17) 1947.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 N. Dearborn St. Chicago 10, Ill.
Phone WHi 4-1000 Cable Address "Jamatoy" Chicago

(Agents for Great Britain—W. D. Saunders Company Ltd., 12 Gough Street (New Oxford Street) London WC1, England.)

SUBSCRIPTION RATES

Price per annum in advance, including postage: Domestic, $12.00. Canadian, $13.50. Foreign, $16.00.

Domestic rates include United States and possessions, Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guam, Guatemala, Mexico, Nicaragua, Paraguay, Peru, Republic of Honduras, Salvador, Samoa, Spain, Uruguay.

SINGLE COPIES of this and the previous calendar year, 35 cents; two years old, 40 cents; three years old, 45 cents; in other words, 5 cents additional is charged for each year preceding the last calendar year.

REMITTANCES should be made by check, draft, registered letter, money or express order. *Currency should not be sent unless the letter is registered.* Stamps in amounts under one dollar are acceptable. Make all checks, etc., payable to "AMERICAN MEDICAL ASSOCIATION."

WARNING: Pay no money to an agent unless he presents a letter showing authority for making collection.

CHANGE OF ADDRESS notice should be received at least 15 days prior to date change is to go into effect, and should state whether change is permanent or temporary. Both old and new address should be given.

WHEN COMMUNICATIONS concern more than one subject—manuscript, news items, reprints, change of address, payment of subscription, membership, information wanted, etc.—correspondents will confer a favor and will secure more prompt attention if they will write on a separate sheet for each subject.

CONTRIBUTORS

EXCLUSIVE PUBLICATION: Articles are accepted for publication on condition that they are contributed solely to this journal.

COPYRIGHT: Matter appearing in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION is covered by copyright. Permission will be granted on request for the reproduction in reputable publications of anything in the columns of THE JOURNAL if proper credit is given. However, the reproduction for commercial purposes of articles appearing in THE JOURNAL or in any of the special journals published by the Association will not be permitted.

MANUSCRIPTS: Manuscripts should be typewritten, double-spaced, and the original, not the carbon copy, submitted. Carbon copies, or single-spaced manuscripts will not be considered. Footnotes and bibliographies should conform to the style of the Quarterly Cumulative Index Medicus published by the American Medical Association. This requires in the order given: name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. We cannot promise to return unused manuscript, but try to do so in every instance. *Used manuscript is not returned.* Manuscript should not be rolled.

ILLUSTRATIONS: Half-tones and zinc etchings will be furnished by THE JOURNAL when satisfactory photographs or drawings are supplied by the author. Each illustration, table, etc., should bear the author's name on the back. Photographs should be clear and distinct; drawings should be made in black ink on white paper. Used photographs and drawings are returned, after the article is published, if requested.

ANONYMOUS CONTRIBUTIONS, whether for publication or information, or in the way of criticism, are consigned to the waste basket.

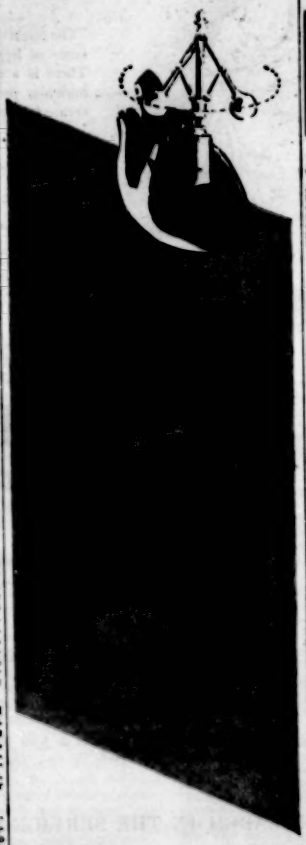
NEWS: Our readers are requested to send in items of news, also *marked* copies of newspapers containing matters of interest to physicians. We shall be glad to know the name of the sender in every instance.

PRICE LIST

A price list describing the various publications of the Association will be sent on request.

AMERICAN MEDICAL ASSOCIATION
535 N. DEARBORN STREET, CHICAGO 10

Digitaline Nativelle maintains the maximum efficiency obtainable. *Positive maintenance*—because absorption is complete and the uniform rate of dissipation provides full digitalis effect between doses. All, with virtual freedom from side reactions.



Not an adsorption mixture of glycosides.

MAINTENANCE: 0.1 or 0.2 mg. daily depending on patients' response. CHARGE-OVER: 0.1 or 0.2 mg. Digitaline Nativelle replaces 0.1 or 0.2 gm. whole leaf. RAPID DIGITALIZATION: 0.6 mg. initially, followed by 0.2 or 0.4 mg. every 3 hours until patient is digitalized.

Send for brochure "Modern Digitalis Therapy" Vestal Pharmacal Co. Inc. (Div. H. Pasquier & Co. Inc.), 75 Varick St., New York

Classified Advertisements

For personal classified advertisement, the rate is $1.50 per insertion for 20 words or less; additional words 20c each. For box number instead of personal address, add 25c and count 4 additional words.

SHOULD YOU PREFER TO HAVE YOUR ADVERTISEMENT set in bold type and bordered (like this paragraph) the rate will be $2.00 for 20 words, additional words 25c each.

Advertisements of manufacturers, dealers, publishers, agencies, etc., and all purely commercial announcements under any caption will be inserted at the rate of $2.25 for 20 words or less; additional words 25c each. No free insertions allowed on commercial announcements. For semi-display, $3.00 for 20 words or less, additional words 30c each. Box number charge same as personal ads.

Journal A.M.A., 535 N. Dearborn St., Chicago 10

NOTICE

Because of the Memorial Day Holiday, classified advertising forms for the June 3 issue will close 12 days prior to date of issue instead of the usual 11 days.

TECHNICAL EXPOSITION

CONTINENTAL MEDICAL BUREAU, AGENCY, OF Los Angeles will be in Booth H-29; we suggest you drop by and check their detailed maps on new distribution in California; platforms in form convenient for office location and hospital information; coverage includes all western states; complete service; staff includes licensed real estate and business broker; medical properties listed for sale or lease; remember Booth H-29 for complete and up to date information on western states.

NOTICE

BOOK, MONOGRAPH OR PAPER TO WRITE? EXPERT staff does complete job for busy doctor or specialist. Box 9282 % AMA.

PACIFIC COAST MEDICAL BUREAU, AGENCY, invites you to visit their booth (H-29) at Annual Session to find opportunity best suited to you. West Coast location; confidential service. 1256 Central Tower, San Francisco 1, California.

BOOKS

BUSY DOCTORS—ORDER ALL THEIR BOOK REquirements from the Chicago Medical Book Company, 1828 Congress, Chicago 12, Illinois; immediate delivery; postpaid; free Medical Bulletin.

ASSISTANTS WANTED

WANTED—GENERAL PRACTITIONER ASSISTANT; to qualified physician-surgeon; large established medical, surgical, obstetrical practice; Holland-German west, ern Michigan city; excellent opportunity; ultimate partnership; modern hospital facilities; references. Box 9338 B. % AMA.

WANTED — ANESTHESIOLOGIST; TO JOIN group; whole time position; to be available in 60 days; salary $6,000 to start; to one with basic science board helpful. Box 9334 B. % AMA.

WANTED—ASSISTANT; ON ANNUAL SALARY basis; to work general practice and surgery; in 20 bed hospital; located in county seat, southern Illinois. Box 9347 B. % AMA.

ASSISTANT—TO GENERAL PRACTITIONER; RIO Grande Valley; climate moderate; Spanish language desirable, but adequate; license or state board reciprocity necessary; applicant give full information. Box 9145 B. % AMA.

WANTED—ASSISTANT IN MEDICINE; IN LARGE and privately endowed institution; unusual opportunity offered; well equipped and established practice; specialties; opportunity for one willing to work; references. Box 9307 B. % AMA.

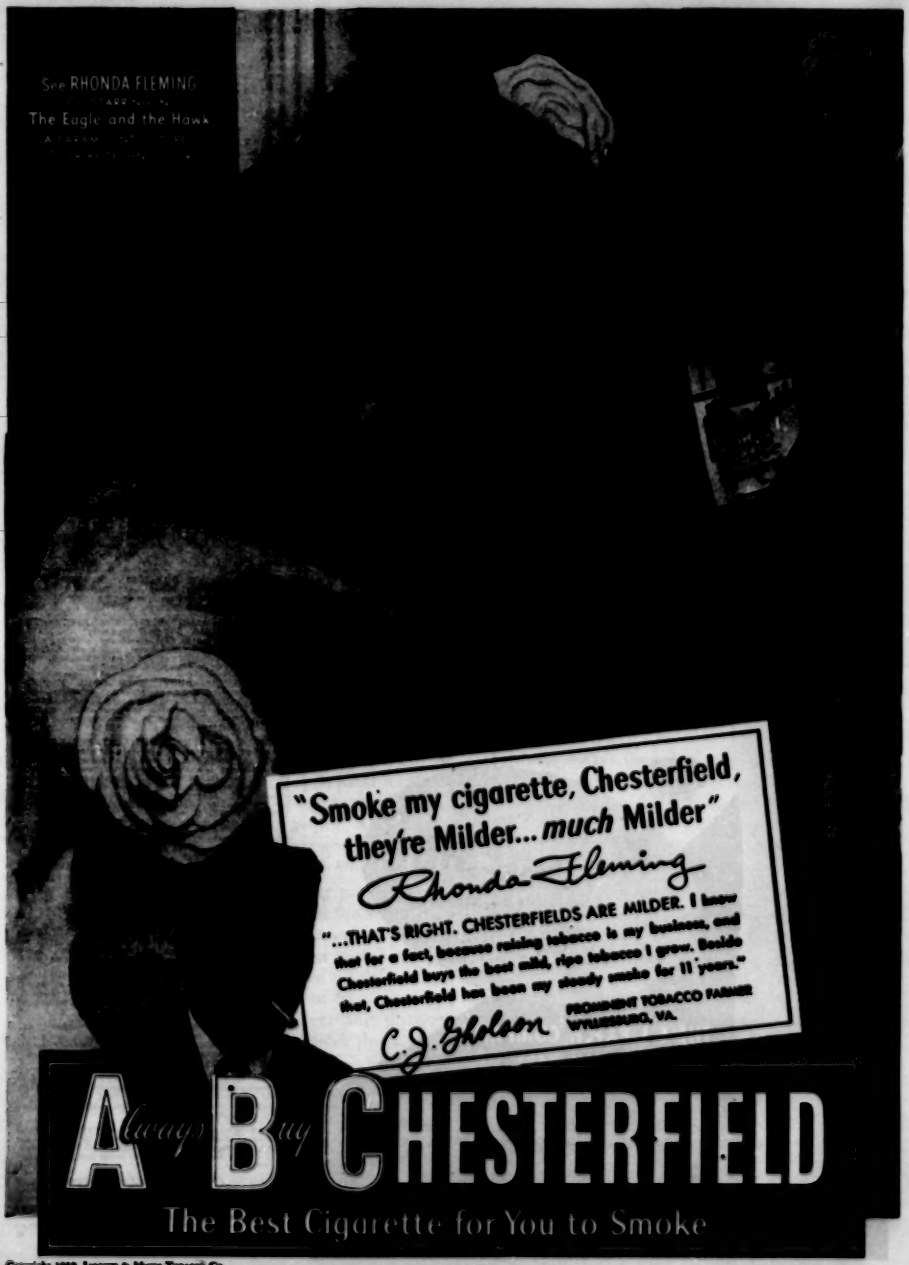
PHYSICIANS WANTED

WANTED—PHYSICIAN WITH ABILITY TO WRITE; must have excellent training in basic sciences and clinical medicine; the organization, nationally known and recognized for its high editorial standards, prepares literature and ethical advertising material for pharmaceutical houses and physicians; duties and addresses itself solely to the medical, dental, nursing and allied professions; experience with a pharmaceutical manufacturer or a professional advertising agency or publication will be essential; replies will be treated in strictest confidence. Box 9338 C. % AMA.

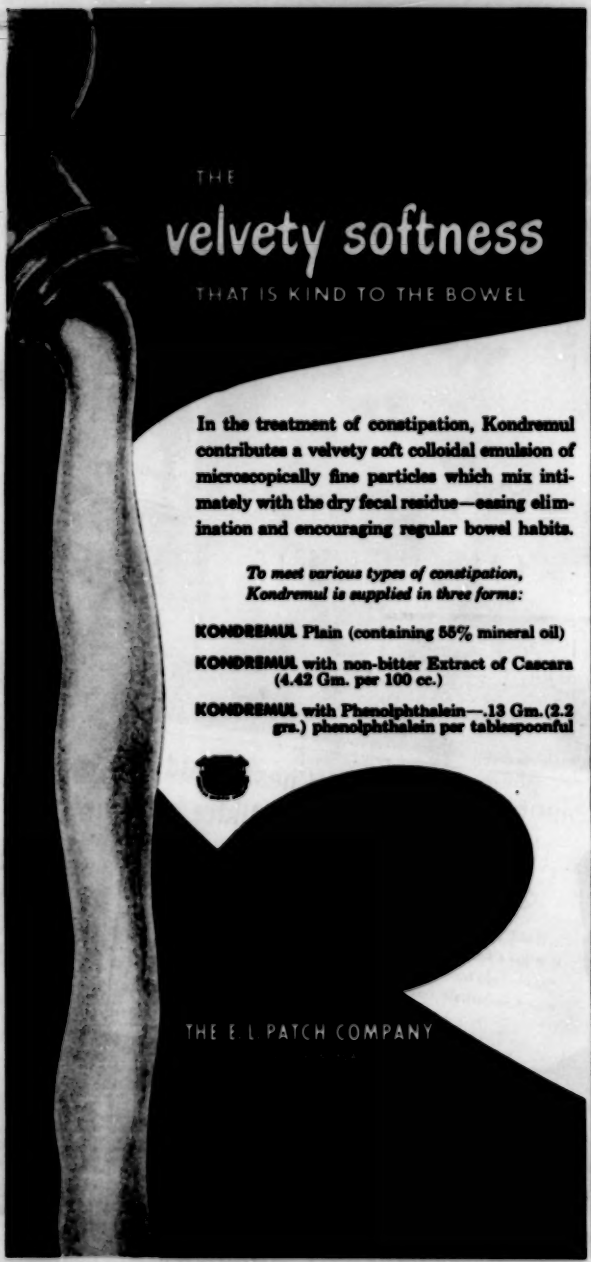
WANTED — RESIDENT PHYSICIAN; JULY 1, 1950; length of contract two years; modern and well-equipped hospital; approved by AOA; near Philadelphia; excellent salary and living conditions; otherwise limited number of interns; Pennsylvania licensure required. Address Medical Director, Delaware State Hospital, Smyrna, Pennsylvania.

WANTED—PHYSICIAN; AT DEAL ISLAND, MARYland; a sportsmans paradise on Maryland's eastern shore; for general practice of medicine; office and residence rent free for 1 year to begin on arrival; access to mainland via recently constructed bridge; 15 miles from county seat; nearest doctor 10 miles; nearest school, churches, roads, electricity, etc.; some partial patients. Write or wire Worthen Development, Deal Island, Maryland. % Alan W. Stevens, Jr. Telephone Deal Island 2272.

(Continued on page 86)



Copyright 1953, Liggett & Myers Tobacco Co.



(Continued from page 84)

WANTED—AUGUST 1ST; YOUNG MD INTERESTED in pediatrics or orthopedics; as full-time assistant to physician-in-charge for crippled children's hospital-school; in Chicago; clinical work, research participation; salary range $540-$440; depending on experience; Illinois license required. Box 9502 C, % AMA.

WANTED — ASSISTANT MEDICAL DIRECTOR; male or female; for ACS approved 200 bed TB hospital; must be eligible for Michigan license; starting salary $7,000 per year to qualified physician. Box 9501 C, % AMA.

PEDIATRICIAN—SHARE EXTENSIVE METROPOLITAN pediatric practice; too large present 2; one of national reputation; will refer new patients, introduce our own patients, share medical history; share office expenses after established; high grade, industrious man will qualify. Box 9563 C, % AMA.

OPENING FOR CLINICAL DIRECTOR—STATE PSYchiatric hospital; active teaching and clinical duties; approved hospital; salary $7,200; 2 room house on grounds can be rented; candidate must be graduate of approved school, eligible for certification American Board Psychiatry; excellent opportunity for right man. Contact: Superintendent, Taunton State Hospital, Taunton, Massachusetts. C

PHYSICIAN—YOUNG WOMAN; GRADE A SCHOOL; DNB; pediatric internship; available July until October, 1950 when residency Columbia University begins; pediatrics preferred but clinical, laboratory, office work considered. Dr. Van Gayl, University Hospital, Minneapolis, Minnesota. C

WANTED—PATHOLOGIST; IMMEDIATELY; 150 BED general approved hospital; laboratory well equipped; 5 technicians; excellent associations; opportunity for development; Tucson, Arizona. Box 9539 C, % AMA.

NEW—SUPERB CONDENSATION OF ALL MEDICAL subjects; Physicians' Encyclopedia; 450 pages; beautifully clothbound; $7.50; 5 day trial. Biblion Press, 257 South Spring St., Los Angeles, California. C

WANTED — QUALIFIED EAR, EYE, NOSE AND throat man; certified or eligible; for association with well established group; ideal mid-western town of 50,000. Box 9570 C, % AMA.

RADIOLOGIST — WANTED AS ASSOCIATE AND partner; private practice and hospitals; Pennsylvania license required. Box 9567 C, % AMA.

WANTED—GENERAL PRACTITIONER; OPPORTUNity to build own practice with group in Chicago; $8250 minimum 1st year. Box 9564 C, % AMA.

ESTABLISHED 15 YEARS—MODERN DOCTORS OFfice; unusual lucrative general practice; community needs physician; large drawing territory; $15,000 yearly assured. Box 9540 C, % AMA.

WANTED—STAFF PHYSICIAN; TUBERCULOSIS hospital +; Michigan; salary open; must be a graduate of an approved American medical school; complete family maintenance and lifting quarters. Box 9510 C, % AMA.

PSYCHIATRISTS AND PHYSICIANS INTERESTED in psychiatry; class A school graduates; eligible for Louisiana license; up to 45 years of age; starting salary $500, maintenance, furnished house, paid vacation, retirement plan. For details contact: Superintendent, East Louisiana State Hospital, Jackson, Louisiana. C

WANTED—PATHOLOGIST; WITH SOME EXPERImental experience; for research in connection with pharmacological investigating and to conduct experimental pathological research; excellent working conditions; permanent position with leading pharmaceutical company in the Mid-West. Box 9522 C, % AMA.

WANTED—PATHOLOGIST; INTERESTED IN location and research; by state hospital; 9-5; sick salary and family maintenance; accredited hospital offers annual course for psychiatric residents; beginning July; includes university graduate course, guest lectures, training in modern therapeutic procedures and supervised work in mental hygiene clinics; superior library facilities; initial salary $4200. Box 9520 C, % AMA.

WANTED—SENIOR PHYSICIAN; COUNTY TUBERculosis sanatorium; training in tuberculosis desirable but not essential; annual salary $5140 plus maintenance for self and wife; grade A American or Canadian medical school graduate; send complete and full particulars of qualifications. Box 9527 C, % AMA.

EXCELLENT OPPORTUNITY—FOR SOMEONE WANTing to do general practice and surgery; town 800; in Texas Panhandle; wheat and cattle country. Write: Dr. J. J. Davis, Higgins, Texas. C

NEW MEXICO WANTS DIRECTOR TUBERCULOSIS control division department of public health; write for application blank and details before June 10th. Merit System Council. Box 936, Santa Fe, New Mexico. C

WANTED — GENERAL PRACTITIONER; BRODER, Iowa; in heart of rich agricultural area; has no doctor; financing and housing available; good school and churches. Write: R. O. Sneberger, Chairman, Doctor Procurement Committee. C

OPENING—ON STAFF OF PRIVATE NP HOSPITAL with opportunity to establish own practice; general or psychiatric; pleasant working conditions; excellent facilities; capable associates. Mayer Sanitarium, Mercer, Pennsylvania. C

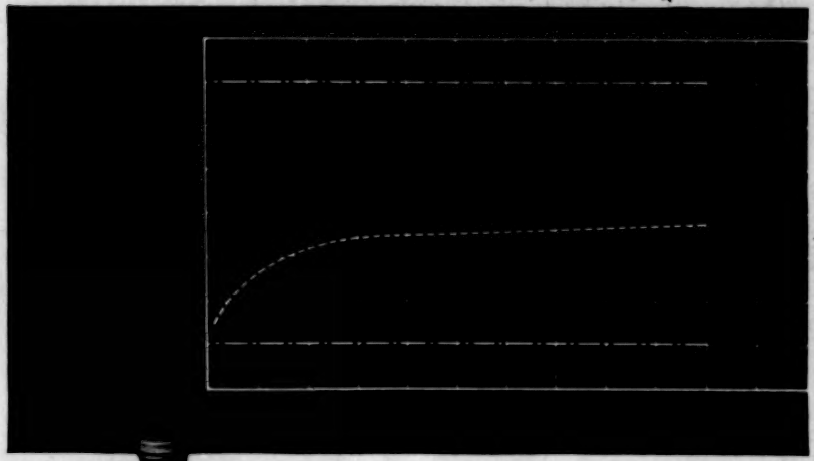
HEALTH OFFICER—WELD COUNTY HEALTH DEpartment; $7,200-$8,580; MPH required; entrance salary depends on experience; staff of 30; field training center; population 63,000. Dr. Ella Hood, Acting Director, Greeley, Colorado. C

WANTED—FULL-TIME HEALTH OFFICERS; GOOD locations; progressive programs; must be eligible for licensure; starting salary $7,200. Contact: G. F. Mathews, M.D. (Commissioner, State Health Department, Oklahoma City, Oklahoma. C

WANTED — STAFF PHYSICIAN; APPOINTMENT starting July 1, 1950; 300 bed approved tuberculosis hospital - affiliated with medical school of Western Reserve University; previous experience in tuberculosis desirable; salary up to $7500 depending on experience; 3 bedroom house available; nominal charge for maintenance. Sunny Acres Hospital, Cleveland 22, Ohio. C

(Continued on page 94)

NON-SURGICAL TREATMENT



OF PEPTIC ULCER

Glycine and Calcium Carbonate

Gastroenterologists have long endorsed the use of milk, when practicable, for its ideal acid-converting power and buffering capacity.[1, 2] In a recent comprehensive paper, Aaron[3] and others[4, 5, 6] express a preference for calcium carbonate as the antacid to be employed.

TITRALAC, by combining proper proportions of purified calcium carbonate and the amino acid glycine, *provides an acid-converting and buffering effect practically equivalent to that of fresh milk*, as shown in the above chart.* Just 1 TITRALAC tablet is equivalent to an 8-ounce glass of milk in antacid effect and provides quick and long-lasting relief from the distressing symptoms of hyperacidity.

The very agreeable taste of soft-massed TITRALAC tablets, which is achieved without employing taste-disguising, acid-generating sugars in the formula, makes them as acceptable to patients as an after-dinner mint. Prescribing TITRALAC eliminates the probability of unfavorable reactions often associated with the taking of metallic-tasting, astringent tablets or liquids, and ensures adherence to the prescribed dosage.

TITRALAC tablets are supplied in bottles of 100 and convenient-to-carry packages of 40.

REFERENCES

1. Rossett, N. E., and Flexner, J.: Ann. Int. Med. 18: 193 (1944). 2. Freezer, C. R. E.; Gibson, C. S., and Matthews, E.: Guy's Hosp. Reports 78: 191 (1928). 3. Aaron, A. H.; Lipp, W. F., and Milch, E.: J. A. M. A. 139: 514 (Feb. 19) 1949. 4. Kirsner, J. B., and Palmer, W. L.: Illinois M. J. 94: 357 (Dec.) 1948. 5. Kimball, S.: in Practice of Medicine (Tice). Hagerstown, Md., W. F. Prior Company, Inc., 1948; p. 210. 6. Special Article: M. Times 76: 10 (Jan.) 1948.

*The formula of TITRALAC is one whose composition and mode of action are recognized by U.S. Patent No. 2,429,598.

Samples and literature to physicians upon request.

SCHENLEY LABORATORIES, INC., 350 FIFTH AVENUE, NEW YORK 1, N. Y.

©Schenley Laboratories, Inc.

VISIT OUR BOOTH AT THE CONVENTION

A protein supplement which patients *enjoy*

When the patient needs protein, and yet won't eat — PROTENUM* may solve the problem.

Rich in protein, low in fat, low in residue, PROTENUM is especially designed for incorporation into a variety of appetite-tempting beverages and desserts, acceptable and suited to patients of all ages. Three daily glasses of PROTENUM beverage prepared according to any of several recipes on the can will supply about 75 Gm. of protein, in addition to that secured in the regular diet.

Literature and samples are available on request.

*T.M. Reg. U.S. Pat. Off.

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U.S.A.

Tonics and Sedatives

From the Salt Lake *Tribune:*

CHIROPRACTORS END ANNUAL MEET IN S. L.

Many of America's leading neurologists and scientists are adopting the theory that human sickness stems from the nervous system rather than from germ origin, Dr. Galen Price, Davenport, Ia., head of the neurophysiology department, Palmer School of Chiropractic.

THE NEWEST MEDICINE

t & s

The Tallahassee, Florida, office of Western Union is reported to have been surprised and pleased with the success of its special "Easter Bunnygram" sales just before Easter Sunday. A message from "Peter Rabbit" was sent to children the night before Easter. One message was extra popular. It read: "Go to bed early and sleep tight, and I'll come hopping in to see you tonight." The men weren't sending the message to their little children but to their wives!—Howard Jay Friedman.

t & s

From a "Smitty" cartoon in the Chicago *Tribune:*

"Trouble, Boss?" asked Smitty as his employer hobbled into the office with the aid of two canes.

"Yes, I stubbed my toe on the door step this morning," was the reply.

"Why don't you go to a doctor?"

"Oh, no. Everytime I go to the doctor he makes me stop smoking."

—John Mirt.

t & s

The following is a short excerpt and direct quotation from a bulletin posted in the Fulton Building, V. A. Regional Office, Pittsburgh, entitled "Fire Alarm Instructions":

Listed below are Fire Alarm instructions to be followed by personnel not having been assigned specific duties:

1. First ring—Everyone evacuate.

—M. D. Reiter.

t & s

Seen in the Vicksburg *Evening Post* by P. Bruce Brockway.

Couple with two-year-old brat desires 4-room apartment that is located in right part of town. Have a lot of bad habits; sloppy housekeeper, noisy but nice. Will pay two months' rent and will not gripe. References. Call 1123 between 9 a. m. and 5 p. m.

HONESTY PAYS!

t & s

The newlyweds were honeymooning at the seashore. As they walked arm in arm along the beach, the young groom looked poetically out to sea and eloquently cried out:

"Roll on, thou deep and dark blue ocean, roll."

His bride gazed at the water for a moment, then in hushed tones gasped, "Oh Fred, you wonderful man. It's doing it."—*Pickup.*

(Continued on page 90)

For use in low sodium diets

LONALAC* is similar to powdered whole milk in nutritional value but it is practically free from sodium. Used to replace milk, LONALAC can be combined with limited amounts of meat, eggs and other foods in the formulation of varied and nutritionally adequate diets supplying as little as 200 to 400 mg. of sodium daily.

LONALAC therefore answers the problem of adequate protein nutrition for patients requiring restriction of sodium, as in the presence of hypertension, congestive heart failure, ascites, etc.

*T.M. Reg. U.S. Pat. Off.

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U.S.A.

Two-Way Protection

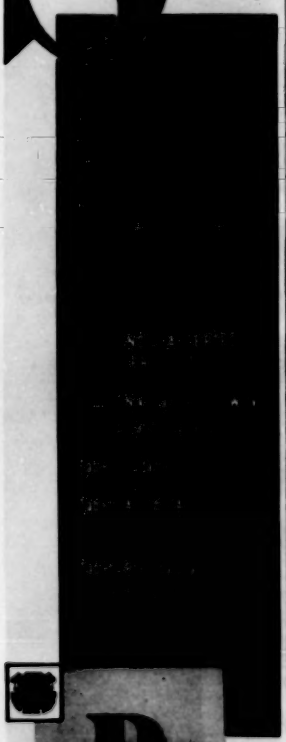
TO MINIMIZE THE ELEMENT OF CHANCE

Look For *New* Lanteen Products
BOOTH C-7, A.M.A. Convention
San Francisco, June 26-30

Lanteen

LANTEEN MEDICAL LABORATORIES, INC.

RVICE
Th thers



PHARMA[illegible] CHEMISTS

(Tonics and Sedatives Continued)

From THE CENTAUR of Alpha Kappa Kappa, May 1950:

Out here in Hollywood not long ago a lady divorced her husband so she could marry a rich man and the rich man gave the husband a hundred thousand dollars to mend his broken heart.

It reminds me of the time my cousin Orchie met a married lady and they fell in love. She told Orchie that if he could get her husband to divorce her, she'd marry him. So Orchie went like a man and spoke to her husband about it.

When he came back to her, she says, "Well, did my husband carry on much?" and Orchie says, "Yes—he said he was gonna feel the loss terribly, but I squared it with a good cigar."—Bob Burns in *New York Post.*

t & s

I CHASED THIS BIRD 7,000 TIMES

J. E. GARRISON, M. D.
CONTINUES as heretofore
THE PRACTICE OF GYNECOLOGY
BUT
DISCONTINUES OBSTETRICS
when present engagements end
525-6 Woodward Building
Birmingham 3, Ala.

Phones: Office 3-03-01, Home 7-12-02
Hours: 10 Until 1, 2 Until 5
DIPLOMATE, AMER. BD. OB.-GYN.

IT WILL NOT AGAIN FLY FOR ME

t & s

From the New York *Herald Tribune:*

DUTCH LINER VOLENDAM TO SAIL ON AUSTERE SUMMER SCHEDULE . . .

Passage fare for this special student sailing has been set at $290 for a round trip in dormitory and $310 in multiple birth cabins, the latter for women only. —Roy N. Barnett

t & s

"Did you participate in many engagements on the continent?" an inquisitive old lady asked a returned soldier.

"Only five," replied the ex-G. I. with becoming modesty.

"And you came through all of them unhurt?"

"Not exactly," he replied sadly. "I married the fifth."—*Pickup.*

(Continued on page 92)

Only CUTTER DIP-PERT-TET* ALHYDROX* GIVES ALL SIX...

1. Active immunization against DIPHTHERIA.
2. Active immunization against PERTUSSIS.
3. Active immunization against TETANUS.
4. Reduced dosage—standardized at 0.5cc. for basic and "booster" injection.
5. FEWER REACTIONS from non-antigenic substances because of improved purification.
6. ALUMINUM HYDROXIDE (Alhydrox) adsorption which increases antigenicity and builds durable immunity.

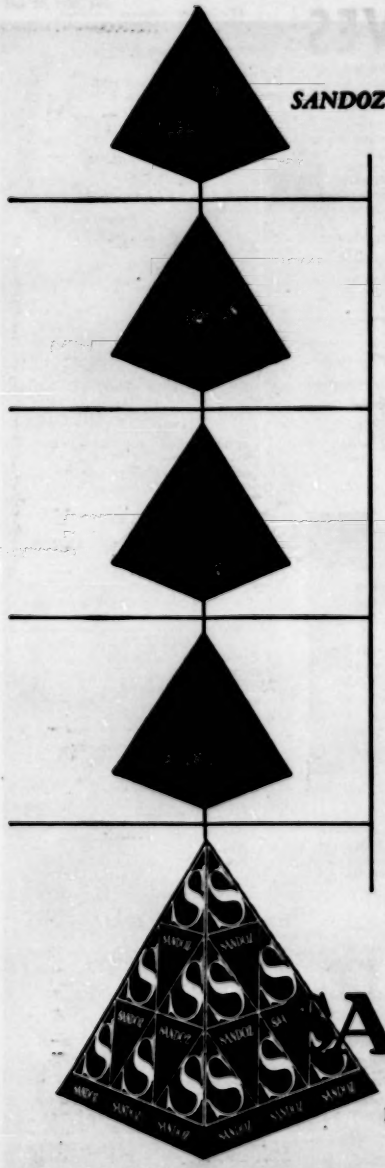
When ordering, specify—Dip-Pert-Tet, Cutter with Alhydrox. There is a Cutter purified toxoid—plain or Alhydrox—for every requirement in your immunization program

*DIP-PERT-TET ALHYDROX—Diphtheria and Tetanus toxoids and Pertussis vaccine combined Aluminum Hydroxide Adsorbed.

Dip-Pert-Tet—ALHYDROX • CUTTER
CUTTER LABORATORIES • BERKELEY, CALIFORNIA

Frances Free Mfg. Co.
8447 Delmar, St. Louis 12, Mo.

PLEASE MENTION THE JOURNAL WHEN WRITING ADVERTISERS



SANDOZ CHEMICAL RESEARCH HAS DEVELOPED MANY NEW MEDICINALS

Following full pharmacological study, substances showing promise of therapeutic value are subjected to extensive clinical investigation.

Representative of the many Sandoz "FIRSTS" IN THERAPEUTICS ARE:

GYNERGEN®

(ergotamine tartrate): specific for migraine headache

DIGILANID®

(lanatosides A, B & C): cardiac glycosides of D. lanata

SCILLAREN®

pure cardiac glycosides of squill

SANDOZ

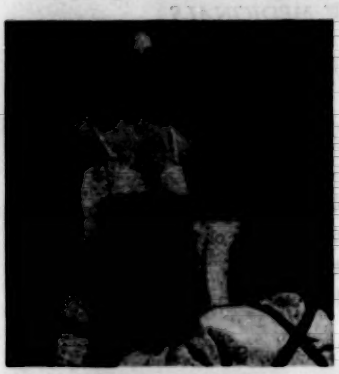
Every Sandoz product is uniform in purity and potency, assuring dependability of action.

SANDOZ PHARMACEUTICALS
Division of SANDOZ CHEMICAL WORKS, INC.
NEW YORK 14, N.Y. • CHICAGO 6, ILL. • SAN FRANCISCO 8, CAL.

Originality • Elegance • Perfection

"You are invited to visit the Sandoz Booth Number H-22 during the coming A.M.A. Convention."

FLUOROSCOPY PROVES
Spirella figure support



SPIRELLA enables the doctor to exercise *absolute control* in cases where abdominal support is indicated. The patient can be fitted in his presence by a qualified Spirella corsetiere, using the exclusive Modeling Garment. The degree of support can be checked by fluoroscopy — both as measurements are being taken over the modeling garment, and when the finished garment is worn.

PLATE 1

PLATE 2

The X-ray prints above, taken under medical supervision, demonstrate the benefits of the Spirella principle of natural support. Plate #1 shows the low position of the colon with an ordinary corset. Plate #2 shows the correction given and maintained by the Spirella garment.

Spirella supports with upward and backward traction without constriction in the region of the diaphragm. There are no bulky, uncomfortable straps. This, and the improvement in the patient's physical appearance, assures the doctor of full cooperation of the patient.

SPIRELLA SUPPORT IS RECOMMENDED IN CASES LIKE THESE:

1. Postural Defects
2. Pendulant Abdomen
3. Ventral Hernia and Incisional Hernia
4. Pulmonary Emphysema
5. Certain Heart Conditions
6. Ptotic Conditions

The Spirella Company, Inc., Dept. 1-50, Niagara Falls, New York
(In Canada—The Spirella Company of Canada, Ltd., Niagara Falls, Ont.)

Gentlemen: Please have the corsetiere call and give a demonstration.

Name .....

Address ..... Phone .....

City ..... Zone ..... State .....

Approved for Advertising in Publications of the American Medical Association

VISIT OUR BOOTH #C-36 AT THE SAN FRANCISCO CONVENTION

(Tonics and Sedatives Continued)

An ad in THE JOURNAL seen by Paul C. Barton.

YOUR BEST
HOTEL VALUE
IN
DENVER
TWO PERSONS
FOR THE PRICE
OF ONE
SHIRLEY SAVOY HOTEL
17th at Broadway
DENVER, COLORADO

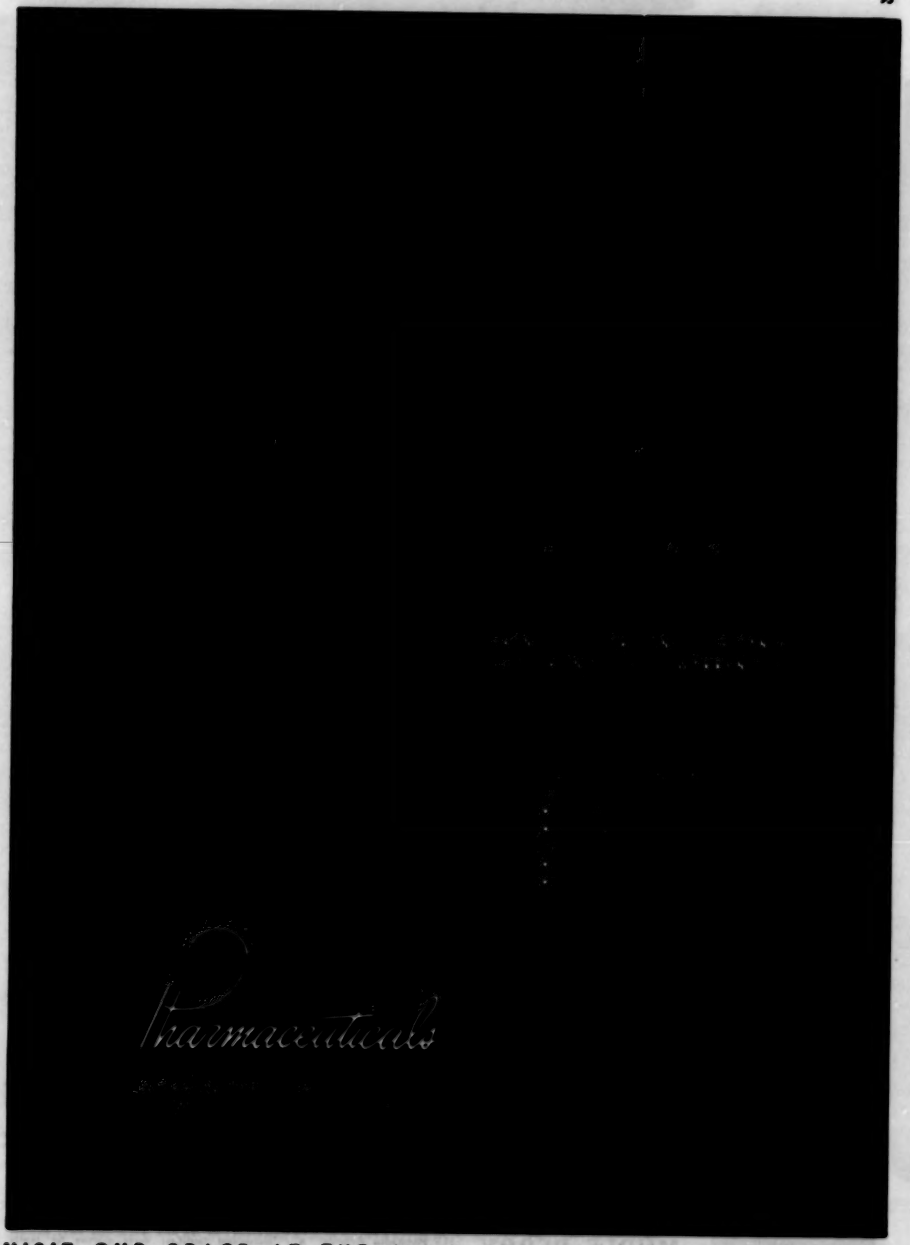
t & s

Passed on by Robert C. Moehlig:

SANTA'S GIFT TO THE MAN PAST FIFTY

Parody on "Santa's Gift to the Lady Past Fifty"

Dear Gentlemen, if I could be Santa Claus
To you suffering brothers of menopause
I'd dump these invaluable gifts at your door—
The gifts you have lost, that you cherished of yore—
I'd deliver to you all premarital vigor
That goes with that young, irresistible "figger"
Restore the old hair you once had on your pate
And remove all worries of your old prostate
I'd bring back the contours with which youth is gifted
So that things now suspended need not be uplifted;
I'd draw in your stomachs and smooth down your backs
'Till you'd be a dream walking in close fitting slacks;
I'd remove all the wrinkles, leave only one chin,
Where fat now hangs loosely, you'd be handsomely thin,
You wouldn't have flashes or queer dizzy spells,
You wouldn't hear noises or ringing of bells;
No searching the closets to find all your clothes,
No hunting for spectacles right on your nose;
No shots in the arm or the fanny or hip
By a doctor who knows that all men must slip,
Remembering that book titled, "All Passion Spent"
And asking yourself where the heck passion went,
And hating your wife when she tries to contrive
To talk to that man who really can jive.
Yes, if I were Santa, these things I'd deliver:
The romance of Cupid with his little quiver,
The lift of your heart when like a wolf you would whistle
The joys of the spirit as light as a thistle.
But alas, I'm not Santa! I'm simply just me,
The bloatedest bondholder you ever did see.
I wish I were there to tell the symptoms I've got,
But I'm due at the doctor's right now for a shot.


Pharmaceuticals

(Continued from page 86)

NEEDED—ONE OR TWO DOCTORS; IN AN AREA with strong Norwegian and German population; excellent location available with interesting financial cooperation; graduates from 30 European schools can now apply for licenses in Wisconsin. Box 9326 C, % AMA.

WANTED—GENERAL PRACTITIONER; TO TAKE over thriving practice in small town; in central Ohio; home and office combination serves large area; excellent income. Box 9315 C, % AMA.

WANTED—YOUNG PHYSICIAN; AS ASSOCIATE IN busy established medical and surgical practice; in private hospital and clinic; opportunity for partnership; exposition of groups and time off for postgraduate work; salary and commission. Box 9326 C, % AMA.

WANTED—KENT MAN; TO TAKE OLD ESTABlished practice; am retiring; equipment for sale; town of 30,000; in Missouri; X-ray and clinical laboratories and 7 good hospitals. Box 9305 C, % AMA.

WANTED—ENT SPECIALIST; ABLE TO DO REfractions; also ophthalmologist who can do bronchoscopy; for partnership in established clinic; $12,000 and up 1st year. Box 9181 C, % AMA.

WANTED — STAFF PHYSICIAN; STATE MENTAL hospital; in Perth; Northwest U. S.; graduate of Canadian medical school; house and family maintenance plus starting salary of $3500 if no psychiatric experience, $4200 with psychiatric experience. Box 9296 C, % AMA.

OBSTETRICS GYNECOLOGY PERCEPTORSHIP available; with Board diplomate; main interest should be obstetrics with minimum of gynecology; salary 1st year; percentage 2nd; excellent opportunity permanent association; eastern city. Box 9416 C, % AMA.

PATHOLOGIST—FOR APPOINTMENT AS CHIEF OF department; 250 bed general hospital *; in city of 30,000; not far from New York City; active educational program in connection with medical school; young man eligible for Boards acceptable, but no necessity; best equipment and facilities. Box 9417 C, % AMA.

ASSISTANT RADIOLOGIST — RECENT DIPLOMATE or one eligible for Boards; 600 bed hospital *; located in southern metropolis; salary $150-$180 per year; submit resume of training and professional experience and recent photograph; immediate. Box 9475 C, % AMA.

WANTED IMMEDIATELY — GENERAL PRACTItioner; part-time position as industrial staff; northern Michigan; excellent opportunity private practice; good hospitals, office furnished; give race; training, telephone number to discuss details. Write: Chief of Staff, 129 Calumet Avenue, Calumet, Michigan. C

OPENING — FOR PHYSICIAN INTENDING CAreer in anesthetical medicine; progressive chemical company, Baton Rouge, Louisiana; graduate approved school and not over 30 years of age; detailed qualifications in 1st letter. Box 9467 C, % AMA.

WANTED NOW—YOUNG PHYSICIAN; GRADE A medical school graduate with 3 or 4 years training in internal medicine; for group association; private hospital; western Pennsylvania; give complete details in answer; requests confidential; answers returned if desired. Box 9471 C, % AMA.

INTERNIST WANTED — FOR CALIFORNIA GROUP established 12 years; under 40; certified or eligible; state principal sub-interest; salary at 1st, partnership soon; recreational facilities and geographical location favorable. Box 9403 C, % AMA.

WANTED—KENT MAN; MUST BE CERTIFIED OR equivalent training; to take over large 13 year established practice; immediately or by July 1st; town supports nearly 60,000; office fully equipped; terms to suit. Write M. C. Sneed, M.D., Hagerstown, Maryland. C

KENT RESIDENT—50 BED HOSPITAL *; APPROVED vacancies July, 1936 and January, 1937; superior opportunity for graduate of class A college and hospital; full maintenance; interview preferred. The Harlem Eye and Ear Hospital, 2009 Lexington Ave., New York City, New York. C

WANTED—HOUSE PHYSICIANS; 300 BED GENeral hospital; salary $200 per month; maintenance available for married couple; graduates of class A U.S. schools only. Columbus City Hospital, Columbus, Georgia. C

VERY ATTRACTIVE RURAL PRACTICE; FOR GENeral practitioner; central Illinois; immediate action if interested. Box 9494 C, % AMA.

WANTED — PHYSICIAN; BY JULY; BIRMINGham graduate; to assist FACS in eastern North Carolina; possibility of early partnership to right man. W. A. Hauser, MD, Georgia, North Carolina. C

TWO PHYSICIANS — PREFERABLY WITH FIVE years experience; serve community 10,000; 2 of 3 doctors retiring soon; 12 miles large modern hospitals; local ambulance service. Sumner Drug Company, Inc., Mt. Holly, North Carolina. C

WANTED—ASSISTANT PHYSICIANS; TENNESsee state hospital; must be graduate of grade A school; two years' experience; starting salary $2000 first year; family maintenance; opportunity for diploma of Board; age 25-35. Apply: Dr. Stanley Brown, Commissioner, Department of Institutions, 300 State Office Building, Nashville 3, Tennessee. C

WANTED—KENT OR OPHTHALMOLOGIST; ALSO pediatrician; for well established clinic; both specialties unopposed; clinic moves in every respect and enrolled new dentist make from $12,000-$15,000 annually; southern city. Box 9440 C, % AMA.

WANTED—ASSISTANT PHYSICIAN; SALARY RANGE $2000-$2400; residents in psychiatry, salary range $2040-$2340; large modern state mental hospital 6 approved; active teaching program; training for American Board. Box 9424 C, % AMA.

WANTED — HOUSE PHYSICIANS; JUNE 15, 1936 Belmont Hospital, 6030 West Melrose, Chicago 41, Illinois. C

WANTED—PHYSICIAN; WITH PENNSYLVANIA license; for full-time institutional work; excellent professional position; living quarters for family optional. Box 9420 C, % AMA.

(Continued on page 96)

NO WHEAT
NO EGG
NO MILK

Just Whole-Grain Rye, Salt and Water

That's why Ry-Krisp is most often prescribed as the bread in allergy diets. Milled, mixed, baked and packaged under controlled conditions so contamination by other food substances cannot occur. Has a delicious rye flavor your patients appreciate. Supplies the protein, minerals and B-vitamins of whole-grain rye.

Free Allergy Diet Material
To Help You Guide Food-Sensitive Patients

DIAGNOSTIC AIDS:

14-DAY FOOD DIARY—Spaces to record foods eaten, symptoms and medications.

RESTRICTED DIET—For determination of suspected food allergy.

DIETARY GUIDES:

Wheat-Free Diet
Egg-Free Diet
Milk-Free Diet
Wheat-Egg-Milk-Free Diet

Each gives lists of allowed and forbidden foods, guide for selecting a nutritionally adequate diet, special recipes.

Each item above is available in packs of 50. Send for booklet showing samples of each, then order the number of packs you can use.

USE COUPON TO ORDER FREE BOOKLET

Please send booklet C 2143 showing samples of above material, so I may order packs as needed.

RALSTON PURINA COMPANY, Nutrition Service
LA-H Checkerboard Square, St. Louis 2, Missouri

Name _____ M.D.
Street _____
City _____ Zone _____ State _____

Colostomy & Ileostomy Patients
find Comfort, Convenience and Longer Service
with PERRY APPLIANCES
Non-irritating Cellulose Pad Prevents Vacuum

COLOSTOMY IRRIGATOR

PERRY CUPS Light weight, clear plastic, leakproof sediment bowl. Odorless. Button-on belt.

Choice of Styles and Sizes

Perry Irrigator, Sanitary, Convenient. Plastic Disc permits visual insertion of catheter and prevents water backwash.

PLASTIC CUP

New Appliance shown for first time. Booth M 12 AMA Convention.

Write for illustrated folder showing complete line.

MURLE PERRY 112 Hennepin Avenue Minneapolis 1, Minn.

in choosing an oral xanthine preparation...

Check These Advantages

◉Low tendency to gastric irritation ◉Oral dosage can be pushed to full therapeutic effect with minimal risk of unpleasant reactions ◉Stability ◉Ready absorption—brings about rapid clinical effect

Contal

Raises the Xanthine Dosage Potential

The oral administration of aminophylline and other theophylline preparations has heretofore been limited by their tendency to cause gastric irritation. Often the limit of gastric tolerance has determined the dose employed.[1] Theophylline-sodium glycinate has the advantage of being "less irritating to the gastric mucosa. It is thus tolerated orally in larger doses than are possible with other theophylline preparations, and it can be administered by mouth in liquid form as well as non-enteric-coated tablet form."[2]

CHOOSE SYNOPHYLATE WHENEVER ORAL XANTHINES ARE INDICATED

SUPPLIED: *Tablets*—0.33 Gm. and 0.165 Gm., each 0.33-Gm. tablet equivalent to 0.16 Gm. Theophylline U.S.P. Bottles of 100, 500, and 1,000. *Syrup*—Each teaspoonful (4 cc.) containing 0.33 Gm., equivalent to 0.16 Gm. Theophylline U.S.P. Bottles of 1 pt. and 1 gal. *Suppositories* (rectal)—Each suppository containing 0.78 Gm., equivalent to 0.39 Gm. Theophylline U.S.P. Cartons of 12, foil wrapped.

1. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics. New York, The Macmillan Company, 1941; p. 281. 2. Council on Pharmacy and Chemistry, American Medical Association: New and Nonofficial Remedies, 1949. Philadelphia, J. B. Lippincott Company, 1949; p. 331.

VISIT OUR CONVENTION DISPLAY, BOOTH No. N-31

BOOTH No. F-17

for samples

NIVEA CREME
NIVEA SKIN OIL
BASIS SOAP

The Prescriber's Cosmetics

***ELASTOPLAST**—Elastic adhesive bandages and unit dressings*

***AQUAPHOR**—Ointment base*

DUKE

Nivea, Basis, Elastoplast, Aquaphor, Trade Marks

GELOCAST

Trade Mark Reg. U. S. Pat. Off.

The ready-for-use Zinc Oxide Calamine Gelatine bandage available in 3" and 4" widths provides the simplification of the Unna Boot.

DUKE

(Continued from page 94)

WANTED—PHYSICIANS; FULL-TIME; FOR VACANcies in Ohio and Indiana; an industrial staff of large eastern railroad; permanent; plan A group; under 45; salary $3600 per annum and advancement. Box 9122 C, % AMA.

WANTED—COMBINATION RADIOLOGIST AND PAthologist; board eligible; to take full charge of large laboratory; Los Angeles, California; top salary. Box 9126 C, % AMA.

OBSTETRICIAN—FOR STAFF OF GROUP PRACtice now under way; location, city of 15,000; heart of diversified farming district; 100 miles from Chicago; 3 of quality; study basis; 1 month vacation per year; salary $6000, $8000, and $10,000 first year; opportunity for 1 member of 1/3 to 1/2 ownership; state age; complete data; reference. Address, Wesley Memorial Hospital, Hospital Association, Inc., Chicago, Illinois.

WANTED—RESIDENT HOUSE PHYSICIAN; MALE or female; licensed to practice in Pennsylvania or eligible for licensing; 200 bed general hospital; study basis; 1 year. Superintendent, Easton County Memorial Hospital, Easton, Pennsylvania.

GENERAL PRACTITIONERS — FOR STAFF OF group clinic; offices already established in downtown city in Ohio; 1 hour from Chicago; 3 physicians now; 2 more needed; salary $3600 annual for 1st year; plus bonus based on net collections. Box 9123 C, % AMA.

PARASITOLOGIST—MEDICAL QUALIFIED; LABORA tory, field and clinical work for pharmaceutical house; 5 days; salary and expenses; $5000; opportunity to develop; Middle West; state age, experience, education, etc. Box 9124 C, % AMA.

WANTED—SUPERINTENDENT FOR CREDITED nurse's training school connected with general hospital; capacity 60 patients; girls; salary, room and board furnished. Write: Dr. W. D. James, Hamlet, North Carolina.

UNOPPOSED PRACTICE—SOUTH, GEORGIA; county seat; county 7 miles from R. R. center; 10,000 pop.; Class A; Class A hospital; 20 miles; office in brick building; rent $15 per month; will introduce; this has continuation. Box 9125 C, % AMA.

MEDICAL OFFICERS WANTED—FOR GLENN DALE Sanatorium, a 75 bed tuberculosis sanatorium for the District of Columbia; salary range from $1620 to $2400 per annum; civil service; age limit 64 years; citizens of United States; graduates in medicine; 1 year experience in tuberculosis required. Address inquiries: Superintendent, Glenn Dale Sanatorium, Glenn Dale, Maryland.

WANTED — RADIOLOGIST; TO BECOME ASSOciated with American Board radiologist, head of department, large teaching hospital; preference for radiologist with several years' experience after graduation; should be able to assume considerable responsibility; Box 330, Bureau Lorenz, Medical Bureau, Palmolive Building, Chicago.

GENERAL PRACTITIONER—INTERESTED IN SURgery; associate established 3 men group; desirable practice; population city; work largely hospitable and industrial; $10,000 per year; state references. Address D1935, Woodward Medical Bureau, 185 North Wabash, Chicago.

FLIGHT SURGEON—FOR PERMANENT INDUSTRIAL connection; Columbia Steam; industrial clinical consultations; fracture injuries; city and CAA examiner; appointment basis $7500 to $8000; New York Medical Exchange, 30 Park Avenue, New York, New York. Patrick Kearny, Director. No registration fee.

WANTED — NEUROLOGIST OR NEUROSURGICIAN; must be fully interested in surgery; to head department of new clinic; Class A hospital; 200 beds required; university town of 120,000; $10. Bureau Lorenz, Medical Bureau, Palmolive Building, Chicago.

WANTED — WOMAN PHYSICIAN; WITH POSTgraduate training in medicine; must be licensed; situated desirable large city; $6,000; must be experienced; age and health very pertinent; state; Central; D4101; Woodward Medical Bureau, 185 North Wabash, Chicago.

CONTINENTAL MEDICAL BUREAU, AGENCY, 1st floor, Bureau Building, 20 West Jackson Boulevard, Chicago. Physicians, surgeons, dentists, nurses, technicians, hospitals, sanatoriums, clinics, laboratories, pharmacies, medical supplies, etc., wanted, sold, exchanged, rented, established, financed, managed, appraised, etc.

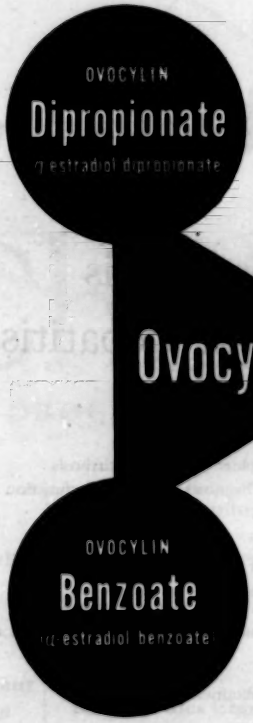
WANTED — OPHTHALMOLOGIST WELL QUALIFIED to fit glasses and do refractions; graduate; qualified to assist in operations required; 11 room clinic; long established; excellent clinical and hospital facilities; town of 15,000; opening on account of death; $6,000 to start; salaried ground $10,000, 1st year; commercially unexcelled; highly recommended. D2101, Woodward Medical Bureau, 185 North Wabash, Chicago.

WANTED — GENERAL PRACTITIONER; PARTICularly interested graduates; to associate with clinic; staff of small Arkansas hospital nearby; income guaranteed should exceed $10,000 1st year; completely equipped; highly recommended. D2102, Woodward Medical Bureau, 185 North Wabash, Chicago.

WANTED—THIRD INDUSTRIAL PHYSICIAN; FOR staff of large chemical company; mostly industrial medicine; both sexes; factory 10 minutes north of Loop; total personnel approximately 17,000; hours from 9:00 to 5:00; excellent new hospital facilities at nearby plant; $5,000 salary and bonus. Bureau Lorenz, Medical Bureau, Palmolive Building, Chicago.

WANTED—YOUNG PHYSICIAN, WITH ONE OR TWO years surgical training after internship; to assist in surgical clinic; 3 men clinic; Central States; hospital facilities of the clinic unexcelled; large clientele; opportunity of $10,000; Mid-West; D1931; early appointment. Bureau Lorenz, Medical Bureau, Palmolive Building, Chicago.

(Continued on page 100)



Most potent injectable derivatives of the naturally occurring estrogen, α-estradiol

The only "Council accepted" injectable derivatives of α-estradiol are the Ciba brands of estradiol dipropionate and estradiol benzoate:

These esters of α-estradiol, which N.N.R. terms "probably the most potent of all known naturally occurring estrogens," are prepared for slower absorption and greater efficiency.

Of the two forms, Ovocylin Dipropionate is the longer-acting. The effect of a single injection may last as long as two weeks.

For further data on estrogen therapy, write Medical Service Division.

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, NEW JERSEY

OVOCYLIN (brand of α-estradiol) Trade Mark Reg. U. S. Pat. Off. 2/1000

today . . .

. . . a more favorable prognosis in chronic hepatitis

The casual relationship between fatty liver and the development of hepatic cirrhosis has been firmly established experimentally and clinically. Diagnosis of hepatic dysfunction in its earliest reversible stages is vital to successful therapy.

A partial list of those conditions giving rise to an excess of fat in the liver includes:

1. Dietetic abnormalities: starvation; the ingestion of diets rich in fats or cholesterol; and as demonstrated in the experimental animal, the failure to ingest adequate amounts of choline or the precursors of choline.

2. Lesions of the pituitary or the injection of substances obtained from the anterior pituitary.

3. Miscellaneous conditions such as pregnancy, pernicious anemia and diabetes mellitus.

4. Infectious processes of various types.

5. Action of a wide variety of industrial and therapeutic agents such as phosphorus, chloroform, benzene, carbon tetrachloride and the heavy metals.

The successful application of choline therapy in the prevention and reversal of fatty metamorphosis associated with the development of cirrhosis of the liver has now focused attention upon the value of the lipotropic agents in the maintenance of the integrity of the liver under all conditions in which excessive hepatic fat deposits may be either a contributory or a complicating factor.

For Palatability in Choline Therapy

Choline

DIHYDROGEN CITRATE (FLINT)

Available in 2 Convenient Dosage Forms

℞ "Syrup Choline (Flint)"
—a palatable and stable preparation containing one gram of choline dihydrogen citrate in each 4 cc. Supplied in pint and gallon bottles.

℞ "Capsules Choline (Flint)"
—containing 0.5 gram of choline dihydrogen citrate per capsule. Supplied in bottles of 100, 500 and 1000.

"Choline (Flint)" is indicated in fatty infiltration of the liver associated with alcoholism, infectious hepatitis, early cirrhosis, diabetes, malnutrition.

For your copy of second revised edition "The Present Status of Choline Therapy in Liver Dysfunction"—write

FLINT, EATON & COMPANY
Decatur, Illinois

Eureka

X-RAY TUBES

YOUR X-RAY TUBE IS THE VITAL PART OF YOUR EQUIPMENT

Long tube life and the optimum in efficiency have gained world-wide recognition for EUREKA x-ray and valve tubes . . . they are accepted by leading Radiologists and equipment manufacturers as the finest obtainable.

EUREKA tubes are manufactured to meet the exacting requirements of the profession.

Rigid standards set up to maintain the highest degree of quality, plus thirty years of experience, and a highly trained personnel are behind every EUREKA tube.

When YOU SPECIFY EUREKA you protect your investment.

SPECIFY EUREKA

There is an X-Ray Tube for Every Professional Use

Visit Our EXHIBIT at BOOTH N-59 Annual Session SAN FRANCISCO

LEADING MANUFACTURERS OF X-RAY EQUIPMENT USE

EUREKA TUBES

Sold By

AUTHORIZED DEALERS

EUREKA X-RAY TUBE CORPORATION

(Continued from page 96)

RADIOLOGIST—ASSOCIATE; MID-WEST UNIVERsity city; on or before July 1st; salary $12,000 1st year plus percentage 2nd year. Allen Agency, 312 Kahn Bldg, Detroit 26, Michigan. C

DERMATOLOGIST WANTED—TO OPEN ON INdependent basis; in Pacific Northwest city where med specialists is badly needed; many connections from other specialists in the town. Continental Medical Bureau, Agency, 510 West Sixth, Los Angeles 14, California. C

WANTED — PATHOLOGIST; TO DIRECT DEPARTment, 150 bed hospital affiliated with university medical school; diplomate, qualified for faculty appointment, required; university medical center, located on suburban, large metropolis area. 343, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PHYSICIAN; QUALIFIED IN INDUStrial medicine; work involves part-time in important 15 man clinic and part-time plant survey connections; medical university city, $25,000; D0,027; Woodward Medical Bureau, 185 North Wabash, Chicago. C

DIPLOMATES OF SPECIALTY BOARDS—BASIC SCIENCE TO 60 (almost unlimited choice of openings now available in hospital and research fields). Continental Medical Bureau, Agency, 1052, 5405 Central Tower, San Francisco 3, California. C

WANTED—OBSTETRICIAN-GYNECOLOGIST; TO BEcome associated with 10 man group; should be in 30's. Diplomate of American Board or eligible; $750-$800 monthly 1st year, partnership after 3 years; college town of 40,000; Northwest. 341, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — CERTIFIED UROLOGIST; BY LONG established 20 man group; desirable mid-west city 50,000; about $15,000 wonderful potential with outstanding group; highly recommended. D167; Woodward Medical Bureau, 185 North Wabash, Chicago. C

CLIENT WANTED—TO ASSUME VERY LUCRAtive practice in Catalina; must be qualified for emergency call; practice open to one of this specialty; present man retiring. Continental Medical Bureau, Agency, 510 West Sixth, Los Angeles 14, California. C

WANTED—YOUNG PHYSICIAN; TRAINED IN INdustrial hygiene and, also, young physician with year's residency in medicine; duties of former concerned with industrial hygiene program; desire of latter consist of serving as assistant to internist, diplomate and chief of staff large American company; excellent hospital facilities, although physical examinations. 547, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — ANESTHESIOLOGIST; HEAD DEPARTment 9 man clinic affiliated with 200 bed hospital; expansion program; supervise 4 nurse anesthetists; large university, medical center city; Central. D217; Woodward Medical Bureau, 185 North Wabash, Chicago. C

YOUNG PHYSICIAN — WITH COURSE IN INDUStrial hygiene who plans to make industrial medicine a career; large American firm; tropics; $7200-$8100 plus many extras. New York Medical Exchange, 680 Fifth Avenue, New York, New York. Patricia Ridgely, Director. No registration fee. C

WANTED — ANESTHESIOLOGIST; DIPLOMATE OR eligible; to organize and direct department in hospital establishing physician-anesthetist set-up; general voluntary 500 bed hospital; large city, university center; Middle West. 346, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED—GENERAL PRACTITIONER; TRAINED IN obstetrics, pediatrics; by established elderly physician forming group; expanding mid-west town and serving 70 mile area; excellent opportunity for young doctor. D1041; Woodward Medical Bureau, 185 North Wabash, Chicago. C

GENERAL PRACTITIONER WANTED—FOR small town near Los Angeles; $12 guaranteed man with partnership in 12 mos. Continental Medical Bureau, Agency, 510 West Sixth, Los Angeles 14, California. C

WANTED — MEDICAL DIRECTOR, CLINICAL DIvision, large teaching hospital; full-time appointment carrying professorial rank; clinical and administrative background desirable; $9,000-$10,000 plus. 347, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

RADIOLOGIST — DIPLOMATE OR IMMEDIATELY eligible; large voluntary hospital; exceptionally desirable southwestern resort; college city 175,000; about $15,000. D236; Woodward Medical Bureau, 185 North Wabash, Chicago. C

GENERAL PRACTITIONERS WANTED—ALL parts of California and other western states. Continental Medical Bureau, Agency, 1405-1407 Crocker Tower, San Francisco 3, California. C

WANTED — PEDIATRICIAN; DIPLOMATE OR ELIGible; to head department, well established 4 man clinic; early partnership; town of 40,000, Rocky Mountain state. 340, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — ORTHOPEDIST; TO HEAD NEWLY created department; well established 11 man group; excellent Rocky Mountain industrial, resort city; should prove strong $15000 monthly after short preliminary period. D179; Woodward Medical Bureau, 185 North Wabash, Chicago. C

GENERAL PRACTITIONER—QUALIFIED IN INdustrial medicine; for plant; part-time; growing coal basin in southern California; $7,000 with increases. Continental Medical Bureau, Agency, 510 West Sixth, Los Angeles 14, California. C

WANTED—YOUNG PHYSICIAN; TO ASSIST IN GENeral surgery and industrial work; preferably young man with 1 or 2 years' residency training in general or orthopedic surgery or traumatology; 60-65 hours; excellent hospital facilities; northern California. 349, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

YOUNG OPHTHALMOLOGIST—6 MAN, LONG ESTABlished group; will supply equipment; others specialists; heap collections up to $12,000; thereafter percentage arrangement; very desirable, expanding mid-west college town 10,000. D252; Woodward Medical Bureau, 185 North Wabash, Chicago. C

(Continued on page 102)

"Premarin"—a naturally occurring conjugated estrogen which has long been a choice of physicians treating the climacteric—is earning further clinical acclaim in the treatment of functional uterine bleeding.

The aim of estrogenic therapy in functional uterine bleeding is to bring about cessation of bleeding, and to produce subsequent regulation of the cycle. Once hemostasis is achieved, the maximum daily dosage of "Premarin" must be continued to prevent recurrence of bleeding. This schedule forms part of cyclic estrogen-progesterone treatment for attempted salvage of ovarian function.

While sodium estrone sulfate is the principal estrogen in "Premarin," other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water-soluble conjugates.

An "estrogen of choice for hemostasis is 'Premarin' in tablets of 1.25 mg. ... The usual dose for hemostasis is 2 tablets three times a day. If bleeding has not decreased definitely by the third day of treatment the dosage level may be increased by 50 per cent."*

*Fry, C. O.: J. Am. M. Women's A. 4:51 (Feb.) 1949

"PREMARIN"®

Estrogenic Substances (water-soluble)
also known as Conjugated Estrogens (equine)

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg., and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

Reg. U.S. Pat. Off.

Modart MATERNITY SASH

Designed to help mothers-to-be remain comfortably active, this garment is made of soft rayon jersey with sides and back of *soft*, moulding batiste, and is easy to adjust to figure change.

The draw ribbons adjust from top to bottom over the abdomen and make the Modart Maternity Sash suitable for wear during the whole time of expectancy. Extra boned band with elastic supports carries the weight to that part of the body best able to carry it safely, the hips.

As the girth increases the sliding back support of the Modart Maternity Sash can be opened as needed, and at all times the correct support is provided.

Write for fully descriptive and illustrative literature

Le MONDE CORSET CO. • Saginaw, Michigan

FOR THE DIABETIC

CELLU GELATIN DESSERT

For colorful, sparkling desserts and salads, suggest CELLU GELATIN DESSERT. It's sugar-free! Fixed value per portion: Pro. 3 grams; Calc. 4.34 grams.

Send for Catalog of Diet Foods

CELLU LOW CARBOHYDRATE Dietary Foods

◆ FACTUAL DATA ON ◆ MEDICAL ECONOMICS

REVISED 1940

A 92-page booklet of up to the minute facts made graphic by numerous charts.

1. Prosperity Medical Facilities: (a) Physicians; (b) Hospitals
2. Vital Statistics: (a) General Mortality; (b) for Specified Causes; (c) Maternal and Infant
3. Sickness Insurance Systems: Provisions in 18 Foreign Countries
4. Relationship between medical problems and economic status.

Price 50c

American Medical Assn., 535 N. Dearborn St., Chicago 10

(Continued from page 100)

WANTED—YOUNG PHYSICIANS: FOR INDUSTRY, hospitals, radiology, pathology, student health, etc. Brown's Medical Bureau, 7 East 42nd Street, New York, New York. C

WANTED—ASSOCIATE MEDICAL DIRECTOR AND, also, staff physicians; former should have 2 years experience in tuberculosis work or training in internal medicine; tuberculosis hospital currently under construction; women eligible; apartments available; $7000-$8000; large city; Middle West. 550, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

OBSTETRICIAN-GYNECOLOGIST — WANTED BY fully approved foreign hospital owned by large American Company; all departments headed by diplomates with certified assistants; 850 deliveries annually; staff of 22 doctors; excellent club facilities; transportation for furniture, family; no income tax; 2 year contract; bonus; 42 day paid vacation; class A American graduate only; $9100 initially; Board credit. D2066; Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—ASSISTANT; BUSY PRACTICE; DUTIES include general practice, obstetrics, surgical assisting and some industrial work; town of 25,000; located few miles from college and university center, near Chicago; salary dependent upon qualifications, minimum $600. 551, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

OPHTHALMOLOGIST—PREFERABLY JUST OUT of residencies; wanted to associate established man; unrivalled hospital facilities; an interesting proposition. Continental Medical Bureau, Agency, 510 West Sixth, Los Angeles 14, California. C

WANTED — ORTHOPEDIC SURGEON; DIPLOMATE or eligible; to become associated with 12 man clinic; advantageous if experienced in general practice before specializing; large city of Southwest, university center. 552, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

MEDICAL HYGIENIST — FULL CHARGE DEPARTment large American company with extensive foreign plant; tropical American dependency; mild climate; excellent recreational facilities; no income tax; transportation furniture, family; about 8000 employees; must set up complete department to care for clinical aspect related to hygiene; substantial salary; 2 year contract. D1491; Woodward Medical Bureau, 185 North Wabash, Chicago. C

ONE OF THE COUNTRY'S LEADING GROUP clinics needs 3 outstanding specialists, allergist, otolaryngologist and clinical pathologist; excellent hospital and research facilities; should qualify for faculty appointments; university medical center. 553, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

PATHOLOGIST—CERTIFIED BY AMERICAN BOARD; 350 bed hospital; New York; $10,000-$12,000. New York Medical Exchange, 489 Fifth Avenue, New York, New York. Patricia Edgerly, Director. No registration fee. C

WANTED—RADIOLOGIST; DIPLOMATE OR ELIGible; to direct department, relatively new hospital, 250 beds; new cancer research institute being completed; town of 40,000; South; around $15,000. 551, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

GENERAL PRACTITIONER—ABLE DO SOME ABdominal surgery, associate with well qualified doctor with fine 25 bed hospital; active surgical, obstetrical private and hospital practice; smaller southern town; recent partner deceased; urgent; outstanding opportunity. D1473; Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — INTERNIST, DIPLOMATE, TO HEAD department of medicine; obstetrician-gynecologist, qualified in medical gynecology and otolaryngologist; 20 man group, expansion program; college town, 60,000; Middle West. 555, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

PATHOLOGIST — FOR EXCELLENT FACULTY APpointment on staff southern university medical school; also some work in their teaching hospital; salary to $10,000 can be supplemented by about $2500 from other hospital work; desirable city 300,000. D418; Woodward Medical Bureau, 185 North Wabash, Chicago. C

GROUP CLINIC LONG ESTABLISHED IN COLLEGE town of 40,000 in Northwest; needs ophthalmologist, dermatologist and neurologist or internist with neurological training; American Board qualified; two board departments required. 556, Burnview Larson, Medical Bureau, Palmolive Building, Chicago. C

MEDICAL PLACEMENT AND MAILING SERVICE

(Mrs. Stewart R. Roberts)
768 Juniper St., N.E.
Atlanta, Georgia

Opportunities in the South include the following:
DENTIST: For smallest DC town.
EENT: Associate with established EENT specialist in DC.
EENT: Southern resort area; new 125 bed hospital; needs EENT specialist.
EENT: Good location in DC.
EENT: Well established EENT specialist in DC city, needs associate.
EENT: Mississippi clinic wants EENT specialist for their staff.
EENT: Texas clinic has opening for this specialty.
GENERAL PRACTITIONER: For clinic in Alabama.
GENERAL PRACTITIONER: Excellent Florida location.
GENERAL PRACTITIONER: Interested in surgery; for North Carolina hospital.
GENERAL PRACTITIONER: For thriving Texas community hospital.
GP-SURGERY: For Mississippi clinic; salary $300 mo.
INDUSTRIAL PHYSICIAN: DC plant in good town.
PEDIATRICIAN: Associate with group in Mississippi; excellent opportunity.
PEDIATRICIAN: Virginia specialist needs an associate.
PEDIATRICIAN: Busy specialist in Florida needs an associate.
RESIDENT PHYSICIAN: For large Georgia hospital.

(Continued on page 104)

V 1
195

NO's worth noting

Potent therapeutic agents may be two-edged swords—clinical efficacy coupled with varying degrees of toxicity. CHLOROMYCETIN is a powerful sword with a single edge. It exerts a remarkable antibiotic effect on a wide range of infections (including many unaffected by penicillin, streptomycin or the sulfonamides). At the same time, it is unusually well tolerated. Published reports emphasize its relative innocuousness.

"**NO significant untoward effects** in patients who received chloramphenicol under our care."

Smadel, J. E.: J.A.M.A. 117:313, 1930 (discussion)

"**NO evidence of renal irritation** . . . No impairment of renal function. . . . **No changes in the red-cell or white cell series** of the blood . . . nor did jaundice occur. . . . Drug fever was not observed . . . side effects were slight and infrequent."

Hewitt, W. L., and Williams, B., Jr.: New England J. Med. 242:110, 1950

"**NO toxic reactions** or signs of intolerance were observed."

Payne, E. H.; Knaudt, J. A., and Palacios, S.: J. Trop. Med. & Hyg. 51:86, 1948

"**NO symptoms or signs of toxic effects** attributable to the drug were observed."

Ley, H. L., Jr.; Smadel, J. E., and Crocker, T.: Proc. Soc. Exper. Biol. & Med. 68:9, 1948

CHLOROMYCETIN

CHLORAMPHENICOL, PARKE-DAVIS

CHLOROMYCETIN is effective orally in urinary tract infections, bacterial and atypical primary pneumonias, acute undulant fever, typhoid fever, other enteric fevers due to salmonellae, dysentery (shigella), Rocky Mountain spotted fever, typhus fever, scrub typhus, granuloma inguinale, and lymphogranuloma venereum.

PACKAGING: CHLOROMYCETIN is supplied in Kapseals® of 0.25 Gm.

PARKE, DAVIS & COMPANY

spend **MORE TIME**
at the **CONVENTION**

(San Francisco, June 26-30)

LESS TIME away from home!

United's luxurious DC-6 Mainliner 300s save you *days* of travel time. They fly cross-country in only 12 hours onestop, and offer comparable speeds from inland cities to San Francisco.

With the time you save, you can fly United's Mainliner Stratocruiser from San Francisco to Hawaii! It's just a 9½ hour flight from San Francisco—a chance to see the Islands you may not get for years! The cost is only $288 round trip (plus tax).

UNITED AIR LINES
Dept. A-4, 5959 South Cicero Avenue, Chicago 38, Ill.

Please send free booklets checked:
☐ Hawaii Air Tours ☐ Yosemite Park
☐ Duncan Hines "Lodging and Dining in Hawaii"

Name_____
Address_____
City_____ State_____

(Continued from page 102)

CALIFORNIA MEDICAL BUREAU AGENCIES: for physicians and other medical and executive personnel; write for application blank; registrations free. 24 S. Los Robles Ave., Pasadena 1, California. C

WANTED—PATHOLOGIST; DIPLOMATE OF AMERICAN Board in pathologic anatomy and clinical pathology; to direct laboratories, one of California's leading institutions; unusual opportunity; $25,000. Burnette Larson, Medical Bureau, Palmolive Building, Chicago. C

YOUNG PHYSICIAN — INTERESTED IN ADMINISTRATIVE clinical research and clinical contacts; pharmaceutical firm; New Jersey. New York Medical Bureau, 489 Fifth Avenue, New York. New York. Patricia Edgerly, Director. No registration fee. C

WANTED—YOUNG GENERAL PRACTITIONER; TO become associated with physician well established in Minnesota; new completely equipped clinic; town of 10,000, excellent hospital facilities; $4800-$6000 1st year, early partnership; $25,000. Burnette Larson, Medical Bureau, Palmolive Building, Chicago. C

ASSOCIATE DIRECTOR OF STUDENT HEALTH — Full-time June 30th appointment; requires some training in psychiatry; western co-educational university; enrollment 2500; excellent record; will appeal with football team; $6000; D142. Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — PEDIATRICIAN; WITH AMERICAN Board qualifications to become associated with pediatrician, diplomate; $10,000-$12,000 1st year; early partnership; born $6,000; M1406. Wm. Burnett Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PEDIATRICIAN; PREFERABLY BOARD qualified; by certified surgeon. 2 full-time physicians and radiologist in clinical practice; desirable county seat town serving large area; excellent 45 bed hospital; Pacific Northwest; D538; Woodward Medical Bureau, 185 North Wabash, Chicago. C

SHAY MEDICAL AGENCY
55 E. Washington Street
Chicago 2, Illinois

ANESTHESIOLOGY: Full-time anesthesiologist needed; to 100 bed hospital; in Southeast, $6000 to $10,000 a year.

DERMATOLOGIST: Southern group are seeking dermatologist, assisting, training; amount of business $5000 and $700 a month to start.

EENT: Loop and Chicago suburban practice; furniture and equipment to sell for about $5000; EENT man has had excellent practice for 27 years; one month to retire.

GENERAL PRACTITIONER: to take over office now 75 bed general hospital; completion of community from the beginning; established income for 1st year is $10,000.

INDUSTRIAL: Four man group wants industrial man to do trauma and routine office work; basic salary or percentage or both; group operates on cooperative plan.

INDUSTRIAL HYGIENIST: One industrial hygienist; must be BIH; to head department of internationally known American company in West Indies.

INTERNIST: If you have more than the usual amount of training in internal medicine and are qualified or eligible for certification, there is a good opening at an 11 man clinic in the mid-west; $800 a month to start with proceeds of practice.

LOCATION: In good mid-west town; beautiful store; equipment available; people will build office to suit.

LOCUM TENENS: Part or full time; Chicago; beginning June 20th; to $325 for October and mid-November; D-Wood.

LOCUM TENENS: For 2 weeks beginning June 23rd; part time; to $400 and maintenance and laundry; Indiana.

MEDICAL DIRECTOR: Under 50; salary $12,000-$15,000; large mid-west mercantile establishment; new 1,500 employee unit.

OBSTETRICIAN-GYNECOLOGIST: Would you like to work with a certified obstetrician-gynecologist in a western university's department of medicine? Applicant must have completed all of his formal training; position will be that of an instructor or assistant professor.

OPHTHALMOLOGIST: To join EENT and ENT men; newly constructed office; complete set-up; medium size town in Southwest.

ORTHOPEDIST: Junior and surgeon to orthopedic surgeon; for California hospital; about a month to start.

OTOLARYNGOLOGIST: Certified or eligible man needed for clinic; in Mid-West; $15,000 to start.

PATHOLOGIST: Full-time pathologist; to take charge of the department; salary $10,000 up, depending on qualifications; 140 bed hospital in mid-west city.

PEDIATRICS: Certified pediatrician needs associate; for mid-west city; to $4,000.

PROCTOLOGIST: 10 mid-west cities of American Protestant Hospitals want to become certified; proctologists to locate in each city with adequate training to operate.

PSYCHIATRIST: Woman physician; for 40 bed sanitarium; to handle alcoholics, drug addicts and health cases patients; salary $600 month; live in or out.

PUBLIC HEALTH: Assistant director; California county; $5000 starting with increases to $6000 at end of 2 years; part time consultation to $2500 at end of 2 years; Pacific county board man; for 120 bed hospital; salary open but will be good; mid-west town of 25,000.

STUDENT HEALTH: Graduate in school on preventive medicine to the student health problems; open to a large Southern coastal school; interesting and varied program.

SURGEON: To assist long tenured surgeon; in California county; 30 members; 100 bed hospital; modern in every detail.

TUBERCULOSIS: New 200 bed hospital; in beautiful southern city; has openings for an assistant medical director and a resident physician; this is an opportunity to do the work you like in attractive surroundings.

FOREIGN: Physician and surgeon; for Pacific coast station; 1 year tour; salary open; to married physician only; liberal allowance for quarters provided free coast and back.

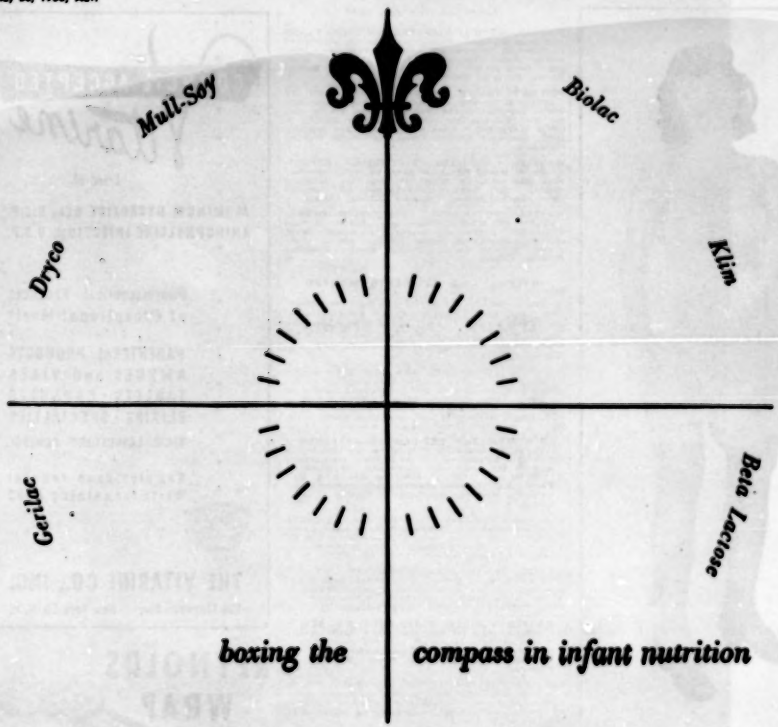
(Continued on page 106)

The Journal Classified Ads Bring Good Results

The Society For Investigative Dermatology
will hold its
ELEVENTH ANNUAL MEETING
at the Clift Hotel, San Francisco, California,
on Sunday, June 25, 1950

(See Archives of Dermatology and Syphilology, Vol. 61, May, 1950, for scientific program.)

SKIN TEMPERATURES IN 1 SECOND with the RAUH SURFACE PYROMETER



North, East, South, West—for every type of nutritional requirement, there is a Borden prescription product scientifically designed to meet the problem.

BIOLAC, Borden's improved, evaporated-type liquid modified milk, provides for all the known nutritional needs of early infancy except vitamin C.

DRYCO, a high-protein, low-fat powdered milk, serves as a valuable food in itself and as a versatile base assuring ample protein intake plus vitamins A and D. MULL-SOY is the answer to milk allergies—an emulsified hypo-allergenic soy food approximating milk. GERILAC, a spray-dried whole milk and skim milk powder, supplies elderly patients with high quality protein, calcium and iron, and also vitamins A, D, B and C. BETA LACTOSE promotes normal intestinal flora and acidity when used as a carbohydrate modifier. KLIM is powdered pasteurized whole milk, spray-dried for rapid solubility, convenient in hot climates and during travel.

These Borden products conform to the requirements of the Council on Foods and Nutrition and the Advertising Committee of the American Medical Association and are available only in pharmacies. We welcome inquiries from physicians. Write for professional literature and attractive practical Recipe Books.

The Borden Company, Prescription Products Division, 350 Madison Avenue, New York 17

THE BARDACH-SCHOENE

VACULIMB*

Eliminates Shoulder or Waist Suspension Harness

This new American development in artificial limbs avoids the use of external leather straps or mechanical moving parts that touch the body. The VACULIMB utilizes the principle of a vacuum assuring far greater comfort. It fits close and accurately, and produces a feeling of lightness, obviating the usual pumping action which causes irritation.

This type limb has been in successful use in Europe for many years, so it is not an experiment.

May we send you special literature about the VACULIMB — and the Bardach-Schoene limbs in general? We cooperate with physicians, making special limbs for their patients. Each case is personalized.

*Trade Mark Registered, U.S. Pat. Off.

So they may walk again

Bardach-Schoene

Company, Incorporated

CHICAGO

(Continued from page 104)

WANTED—MEDICAL DIRECTOR, SOUTHERN PLANT of large industrial company; preferably one experienced in industrial medicine or general practice; small community located short distance from large winter resort city; about $10,000 year. Box 9346, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

DISTRICT HEALTH OFFICER — REQUIRED BY western state; well established, full-time department located important development area; about $10,000 plus per diem and traveling expenses; graduate training in public health and 3 years medical experience required. D182, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — GENERAL PRACTITIONER; EXPERIenced or trained surgery or obstetrics; clinic and hospital small town, few miles from large city, university medical center; South; around $10,000. 541, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PHYSICIANS; INTERESTING OPPORtunities for American Board men qualified to head departments, general and industrial physicians, recent graduates desirous of further training; strictly confidential. Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

INTERNS AND RESIDENTS WANTED

*The * signifies a hospital approved for internships and the + approved for residencies in specialties by the Council on Medical Education and Hospitals of the A. M. A. Consult Council's approved list for types of internships and residencies approved.*

ROTATING INTERNSHIP AND GENERAL, MIXED residency—in 221 bed approved AMA hospital *+; beginning now and July 1, 1938; supervised training in medicine, surgery, obstetrics, GU and pediatrics; open to graduates of AMA approved schools only; salary $100-$200 monthly commensurate with experience. Apply: Sister Superior, St. John's Hospital, Lowell, Massachusetts. D

ANESTHESIOLOGY RESIDENCIES—APPROVED: Georgetown University Hospital *+ and Gallinger Municipal Hospital *+; 1 or 2 years; residencies available any month; full maintenance and stipend $1200 1st year, $1800 2nd, $2000 3rd. Address: E. R. Yeatter, MD, Director Anesthesiology, Georgetown University Hospital, Washington 7, District of Columbia. D

ONE YEAR RADIOLOGY RESIDENCY—AVAILABLE July 1st; approved by American Board; 250 bed general hospital +; 50% salaried rate; $125 monthly and maintenance. Apply: Dr. C. Colangelo, 1200 Belden Avenue, Chicago 14, Illinois. D

WANTED—TWO GENERAL RESIDENTS AND TWO interns; to begin July 1, 1938; general hospital *+; fully approved for internship and graduate training in surgery; liberal remuneration. Apply Administrator, St. Joseph's Hospital, Lancaster, Pennsylvania. D

WANTED — THREE MIXED ROTATING RESIdents; to begin not later than July 1, 1938; senior if possible; $250 per month plus full maintenance; 250 bed hospital A. Apply Superintendent, Federal Hospital, 2312 South Sixth Street, Minneapolis, Minnesota. D

RESIDENCY IN PSYCHIATRY AND RESIDENCY IN pathology; available July 1, 1938; departments under certified experienced specialists and are fully approved; $275 monthly and complete maintenance for self and wife. Box 9470 D. % AMA.

WANTED—RESIDENT, FOR A COMBINED SERVICE, ophthalmology and otolaryngology; fully approved hospital +; starting salary $100 a month and complete maintenance; give full details in 1st reply. Box 9349 D. % AMA.

SURGICAL RESIDENT WANTED—YEAR BEGINning July 1st; 321 bed fully approved general hospital *+; 1 year; 3 year residency program; salary $100 per month and full maintenance; graduate of class A schools only. Apply: Administrator, St. John's Hospital, Cleveland 2, Ohio. D

RESIDENCY—IN INTERNAL MEDICINE AND SURgery; 250 bed approved hospital; residency open July 1, 1938; stipend $200 per month. Address inquiries: R. R. Baldwin, MD, Marshfield Clinic, Marshfield, Wisconsin. D

RESIDENT DOCTOR—APPOINTMENT JULY 1ST FOR 6 months approved, general hospital, Westchester, New York hospital; substantial remuneration; personalities; approved medical school and internship. Box 9351 D. % AMA.

ROTATING INTERNSHIPS—MID-WEST; APPROVED 220 bed modern hospital * with permanent intern training program; graduates of grade A schools only; full maintenance and compensation available. Box 9347 D. % AMA.

SURGICAL RESIDENCY—THREE YEARS; FULLY approved; starting July 1, 1938; 200 bed general hospital *+. Write: General John M. Willis, Director, Hamot Hospital, Erie, Pennsylvania. D

APPROVED ENT RESIDENCY—AVAILABLE JULY 1, 1938; Cleveland City Hospital *+; affiliated with School of Medicine, Western Reserve University; 1050 beds; active out-patient service. R. A. Ferguson, Superintendent, 3395 Scranton Road, Cleveland 9, Ohio. D

RESIDENCY IN RADIOLOGY — FOR ONE YEAR; available at the Montefiore Hospital, Montreal beginning August 1st; with salary. Apply: Dr. E. M. Crawford, 2100 Marlowe Avenue, Montreal 28, Quebec. D

ASSISTANT PHYSICIAN — ACTIVE PSYCHIATRIC service; approved for residency training; salary $3500; living quarters available; open to graduate of approved school. Apply: Superintendent, Taunton State Hospital, Taunton, Massachusetts.

RESIDENTS—FOR 125 BED HOSPITAL; IN NEW York area; residencies available at once. Box 9500 D. % AMA.

WANTED — RESIDENT, INTERNAL MEDICINE; fully approved hospital *+. Director, Passaic General Hospital, Paterson 3, New Jersey. D

(Continued on page 108)

Vitarine

brand of

ALUMINUM HYDROXIDE GEL, U.S.P.
AMINOPHYLLINE INJECTION, U.S.P.

Pharmaceutical Products of Exceptional Merit

PARENTERAL PRODUCTS
AMPULS and VIALS
TABLETS · CAPSULES
ELIXIRS · SPECIALTIES
RIGID LABORATORY CONTROL

Samples upon request
Write for catalog #502

THE VITARINE CO., INC.
636 Eleventh Ave. New York 19, N. Y.

REYNOLDS WRAP

"The Pure Aluminum Foil in Handy Rolls"

Reynolds Wrap is pure aluminum foil, 12" width, packaged to tear straight from the roll. The material is non-toxic, moisture-proof, grease-proof, odor-proof and impervious to light. It molds readily to any shape and seals snugly by just folding the edges together. These properties make it an ideal wrap to keep foods fresh, as well as for many other protective uses — such as wrapping perishable drugs, keeping moisture from delicate rustable instruments, etc. Its resistance to heat, which enables housewives to use REYNOLDS WRAP for flavor-sealed cooking and baking, also makes possible other uses in the doctor's office — such as making a handy holder for instruments being sterilized. REYNOLDS WRAP is sold at grocery, drug, department and housewares stores.

V 1
195

Announcing—
a new contrast medium
for Urography—

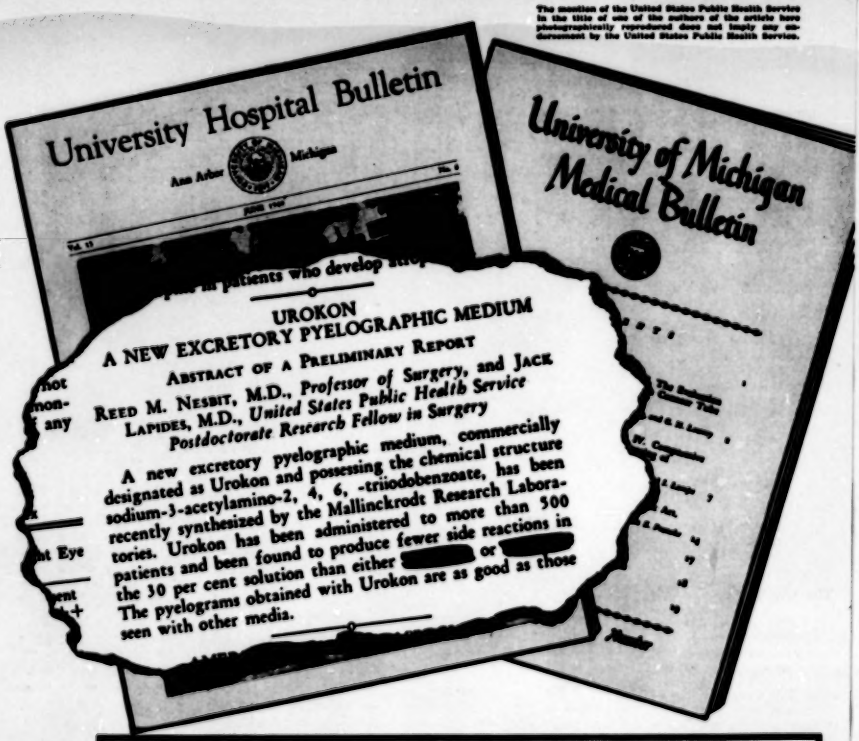
Mallinckrodt®

UROKON SODIUM 30% 2.4 Iodine Contrast medium for Urography

Mallinckrodt

more

The mention of the United States Public Health Service in the title of one of the authors of the article here photographically reproduced does not imply any endorsement by the United States Public Health Service.



Since 1924, when iodo-organic compounds were first used as X-ray contrast media, Mallinckrodt research has consistently sought improvements in these diagnostic aids. Intensified work in recent years has resulted in a new medium for excretory and retrograde urography, UROKON®. It combines lower toxicity with greater opacity to X-rays.

Sterile Solution Urokon Sodium 30% is now available to the medical profession in packages of one, five, and twenty ampuls (25 cc.). By use of the coupon on the last page of this announcement, reprints of published papers reporting extensive clinical research may be secured as they become available.

A FEW IMPORTANT FACTS ABOUT UROKON® SODIUM FROM CURRENTLY AVAILABLE REPORTS

UROKON SODIUM BRAND OF SODIUM ACETRIZOATE

Urokon Sodium, one of scores of iodine compounds developed at Mallinckrodt Research Laboratories, proved to have a very low toxicity. Accordingly, extensive clinical tests were inaugurated, first at the University of Michigan Medical School under Dr. Reed M. Nesbit, and later at Washington University School of Medicine under Dr. D. K. Rose.

FEW SIDE REACTIONS have been reported by both clinical groups. At the former institution comparative tests were made with Urokon Sodium and two other media currently in widespread use. Initial studies were made with a 50% solution of Urokon Sodium, but later it was shown that a 30% solution produced fewer side reactions without affecting the quality of the urograms. After fifteen months of routine use, the investigators reported:[1]

Accordingly, another series of 1081 patients were given 25 ml. of a 30% solution of Urokon.† Analysis of this group revealed that the number of reactions had been greatly decreased, while

†"The duration of injection was approximately 90 seconds."

pyelogram quality appeared to improve. The results are recorded in Table 3. The greatest reduction in reactions occurred in the foreign taste, arm pain, and nausea groups. It will be observed that the more dilute solution of Urokon produced reactions in only 19% of the patients, a percentage far less than that of either Medium B (36%) or Medium A (62%).* Emphasis should be placed on the fact that no delayed reactions were noted in any of the patients including those with impaired renal function.

TABLE 3.—Observations in Second Series of Patients

	30% Urokon	Medium A	Medium B
Percentage of patients exhibiting one or more reactions	19	62	36
Percentage of patients demonstrating individual reaction types—			
Nausea	10	13	9
Vomiting	4.4	5	1
Arm Pain	1.4	6	28
Foreign Taste	1.3	6	2
Mild Urticaria	1.1	5	0
Severe Urticaria	0.09	0	0
Flush	0.46	16	3
Dizziness	0.20	3	1
Sneezing	0.40	0	0

The Washington University group reported:[2]

There were no alarming or lasting reactions to the intravenous injection of 7.5 gms. Urokon. The reactions varied mainly with the *rate of injection* and the history of *allergy*.

The optimum rate of injection of Urokon was determined as 4 minutes for the average 70 Kg. (150 lb.) man.... As can be seen by reference to Table II, vomiting shows a marked drop in occurrence as the time taken for the injection increases.... *Vomiting did not occur in a single case in which the injection time was 4 minutes or longer.* In contrast to Medium B* it can be seen that Urokon gives fewer reactions even in the 90 second injections.

TABLE II
Comparison of Reactions Using Different Rates of Injections

Medium	Medium B	Urokon (30%)	Urokon (30%)	Urokon (30%)
Time	30 sec.	60 sec.	90 sec.	4 min.
Number of cases	150	34	290	51
No. of patients exhibiting one or more reactions	22%	40%	15%	10%
Flush	11%	18%	6%	None
Nausea	15%	38%	13%	10%
Vomiting	2%	24%	4%	None
Sneezing	None	6%	None	None
Urticaria	None	None	0.3%	None
Dizziness	None	None	None	None

Urokon was spilled outside the vein in 25 cases (5.1%). No untoward effects were noted except immediate arm pain in 9 cases (1.8%). This pain was only at the site of the spill and was completely gone by the time the patient left the cystoscopy room. No case of veno-spasm causing severe arm and shoulder pain was noted in any of the 390 Urokon injections, and only one case has been found who had slight upper arm pain. This lasted only during the injection.

THE QUALITY OF PYELOGRAMS with Urokon has proved to be consistently good in tests made to date. The two clinical groups were in agreement in this respect, as shown in the following tabulations:

Evaluation of Quality of Pyelograms[1]

	Urokon 30%	Medium A	Medium B
Good to Excellent	64	53	47
Fair	25	31	38
Poor	11	16	15

Grading of Pyelograms[2]

Medium	Medium B	Urokon (30%)
Number of cases	150	390
Satisfactory	58%	62%
Borderline	29%	22%
Poor	13%	16%

RAPID EXCRETION was observed by the Washington University group:[2]

Urokon appears earlier after injection and disappears more rapidly than Medium B. This is true even when the rate of injection of Urokon is 4 minutes.

RETROGRADE USE was described by the same group:

Using an average of 5.6 cc per kidney and ureter of 30% Urokon, 337 kidneys (205 patients) were studied. Of these cases 6% were given sodium pentothal analgesia or other anaesthesia for the instrumentation. Only one of these cases under analgesia or anaesthesia demonstrated any renal backflow and none complained of lasting renal pain (24 hours or longer).

Immediate pain occurred with pyelorenal backflow in 3% of the kidneys and without renal backflow in 5% of the kidneys. Backflow with no pain was demonstrated in 3% of the kidneys. Pain lasting 24 hours caused by the retrograde pyelogram occurred in 2%. Four of these kidneys demonstrated renal backflow and the other three kidneys did not.

No evidence of irritation or toxicity was noted. No case of anuria or oliguria occurred in this series. We feel that it is tolerated much better than Hippuran.

THE LOW TOXICITY of Urokon was revealed in studies made at the University of Michigan:[3]

Studies of its acute and chronic toxicity in the rat, dog and monkey indicated that four to eight times the amount per kilogram of body weight, necessary to visualize the kidneys in man produced no toxic symptoms. Likewise, no microscopic changes of the kidneys were observed in rats given daily injections of 0.2 gm. of Urokon per kilogram of body weight for two weeks.

* * *

UROKON SODIUM IS sodium 3-acetylamino-2,4,6-triiodobenzoate, a stable organic iodine compound.

Its molecular weight is 578.9 ($C_9H_5NO_3I_3Na$) and it contains 65.8% iodine. Urokon Sodium occurs as a white, crystalline powder, freely soluble in water.

Bibliography

[1] Nesbit, Reed M. and Lapides, Jack. Observations on Urokon, a New Excretory Pyelographic Medium, Michigan Medical Bulletin, Vol. 14, No. 2, February 1950.

[2] Richardson, J. F. and Rose, D. K. Clinical Evaluation of Urokon in Pyelography, The Journal of Urology (to be published).

[3] Neuhaus, Dorothy R., Christman, Adam A., and Lewis, Howard B. Biochemical Studies on Urokon (Sodium 3,4,6-Triiodo-2-Acetylaminobenzoate), a New Pyelographic Medium. J. Lab. Clin. Med. 35, p. 48, January 1950.

*In quoting these clinical reports, the actual trade names are omitted.

UROKON SODIUM 30% — A new Contrast medium for Urography

Mallinckrodt

more

Excretory and Retrograde Pyelograms with Urokon—

from routine films—
Washington University School of Medicine

EXCRETORY PYELOGRAM

RETROGRADE PYELOGRAM

V I
195

Mallinckrodt®

MALLINCKRODT CHEMICAL WORKS

ST. LOUIS — NEW YORK

CHICAGO • CINCINNATI • CLEVELAND • LOS ANGELES • PHILADELPHIA
SAN FRANCISCO • MONTREAL • TORONTO

MALLINCKRODT CHEMICAL WORKS
Second & Mallinckrodt Sts., St. Louis 7, Mo.
or
72 Gold Street, New York 8, N. Y.

Please send me full information on
STERILE SOLUTION UROKON® SODIUM 30%.

Name _____ M.D.

Address _____

City _____ Zone _____ State _____

Terra fertilis

From the fertile soil have come great new antibiotics to advance man's control of bacterial, rickettsial, viral and protozoan infections. Through the application of its research and production facilities Pfizer has been privileged to contribute to the development of these vital agents.

Pfizer

the world's largest source of antibiotics

CHAS. PFIZER & CO., INC., *Brooklyn 6, New York*

when **soap** is **guilty** of initiating, aggravating, or prolonging **dermatitis** and **dermatoses**

use **LOWILA**

- entirely soapless
- cleanses efficiently
- virtually non-irritating, pH right
- lathers beautifully in hard or soft water
- permits the skin to heal in soap-sensitive patients (housewives, infants, industrial workers, the aged; in pruritus, fungus infections, eczema) . . . where cleanliness is necessary and soap may harm (acne vulgaris, furunculosis, impetigo, psoriasis).

LOWILA cake for skin cleansing, hands, face, bath

LOWILA liquid for household cleansing, laundry, dishes, etc.

for complete independence from soap

send for sample supply and literature

WESTWOOD PHARMACEUTICALS
Division of Foster-Milburn Co.
468 Dewitt St., Buffalo 13, N.Y.

It's the OFFICIAL A.M.A. Auto Insignia

Assure yourself of every traffic courtesy by displaying this official emblem on the front and back of your car. It shows the Aesculapian staff, the well known green cross and the unmistakable initials "M.D." Each emblem is numbered and registered. PRICE, including clamp bracket for use on license plate, $2.25 each. Order today! (Sold only to A.M.A. members)

American Medical Association, 535 North Dearborn St., Chicago 10, Ill.

(Continued from page 106)

PSYCHIATRY AND NEUROLOGY—APPROVED 1 year residency; starting July 1, 1958; in 300 bed hospital; general hospital ♦ ; 24 bed psychiatric unit; unrestricted possibilities for experience in clinical psychiatry, clinical neurology and psychosurgery; all disciplines represented including psychoanalysis, psychotherapy, active medical psychology service, courtesy appointments; American board psychiatrist in charge; interns and residents; opportunity for fulfillment of 1 year requirement in clinical psychiatry and neurology for American Board. Apply: Medical Director, St. Luke's Hospital, 1429 S. Michigan Avenue, Chicago, Illinois. D

AMA APPROVED MEDICAL RESIDENCIES—AVAILABLE July 1, 1958; also surgical residencies approved for preliminary training for sub-specialties; approved radiology residency; also pediatric residency; 350 bed general hospital ♦ ; with combined teaching center in all departments and affiliation with medical center medical college. Write: Medical Director, Methodist Hospital, Dallas, Texas. D

GENERAL RESIDENCY—AVAILABLE JULY 1ST; 24 bed approved hospital ♦ ; 25 miles from Philadelphia; ideal for general practice; salary $240 plus full maintenance; 2 boys can share room. Apply: Pottstown Hospital, Pottstown, Pa. D

POSITIONS AVAILABLE—JULY 1, 1958: 300 BED general hospital ♦ ; approved by AMA and AOA; excellent teaching program; 1 year rotating internship, $100 plus full maintenance; 1 year mixed residency $17; plus full maintenance; resident must have, or be qualified for Pennsylvania license. Apply: W. Matheson, Superintendent, The Williamsport Hospital, Williamsport, Pennsylvania. D

WANTED—RESIDENT PHYSICIAN; MICHIGAN graduate of an approved American medical school; thoracic surgery done by Board man; approved medical residency in pulmonary diseases; salary open; complete family maintenance and living quarters. Box 9317 D, % AMA. D

400 BED CALIFORNIA HOSPITAL♦—APPLY: Administrator, Eureka General Hospital, Long Beach, California; 1 approved pediatric residency available July 1st; 1 mixed residency available July 1st; mixed residency with emphasis on surgery, obstetrics, emergency service; salary $150 per month with year end increment; California license necessary. D

INTERN WANTED—FOR COUNTY HOSPITAL, Tampa, Florida; can accredited and cannot be used toward specialty boards, but offers excellent experience in obstetrics, gynecology, surgery, medicine and pediatrics for one planning to do general practice; salary $2400 plus maintenance. Apply: Dr. Leo Buttell, County Hospital, Tampa, Florida. D

IMMEDIATE OPENING—IN 100 BED HOSPITAL♦+; Southwest; for medical resident to do general training; chief of service diplomate of Board; salary $600 per month with full maintenance or $800 per month without maintenance. Box 9320 D, % AMA.

ORTHOPEDIC FELLOWSHIP—AVAILABLE JULY 1, 1958; allows 1 year credit, including basic science, toward Orthopedic Boards; salary $200 a month without maintenance. Albany Hospital, ♦ affiliated with Albany Medical College, Albany, New York. Write: Administrative Office. D

PATHOLOGY RESIDENCY—AVAILABLE JULY 1, 1958; approved 1 to 2 years; 250 bed hospital ♦ ; active teaching program; 3500 surgical specimens; $3,000 laboratory load; clinic and diagnostic clinic; $150 per month. Apply: D. G. Hambrecht, MD, Pathologist, The Methodist Hospital of Central Illinois, Peoria 3, Illinois. D

WANTED—RESIDENTS IN MEDICINE; FOR JU-nediately service and for July, 1958; at Detroit Memorial Hospital,♦ + formerly St. Mary's Hospital; 200 bed general hospital; affiliated with Wayne U. Detroit Memorial Hospital, 1326 St. Antoine St., Detroit 26, Michigan. D

WANTED—RESIDENT AND ASSISTANT RESIDENT; in internal medicine; approved by AMA; 180 beds; active out-patient department, including all the specialties; salary $165 per month plus uniforms and maintenance. Apply: Director, Rutland Heights General Hospital,♦+ 1212 Light Street, Baltimore 30, Maryland. D

RESIDENT—ENT; 1000 BED GENERAL TEACHING hospital ♦ ; connected with the University of Buffalo, New York; training includes otolaryngic plastic and otolaryngical surgery; about $1700 per annum with yearly raises. Apply: Edward J. Conway, Memorial Hospital, Buffalo, New York. Opening for July 1, 1958. D

WANTED—RESIDENT IN GENERAL PRACTICE; 6 months in Obstetrical supplemented by 6 months in affiliated Buffalo teaching hospital; excellent opportunity for someone going into general practice. Apply: Superintendent, St. Francis Hospital, Olean, New York. D

WANTED—RESIDENT IN RADIOLOGY; FOR UNEX-pected vacancy July 1, 1958; in 600 bed teaching hospital ♦ ; in New York City; approved service; must be graduate of approved medical school with internship in approved hospital; full maintenance, uniforms, $250 per month. Box 9326 D, % AMA.

AVAILABLE—ONE RESIDENCY (INTERNAL medicine) approved; starting July 1st; teaching program; 300 bed general hospital ♦ ; about $400 per month; maintenance; beginning July 1, 1958. Box 9321 D, % AMA.

ONE YEAR RESIDENCY—IN OBSTETRICS; AVAILable July 1st or as soon thereafter as possible. For full information write: Robert Packer Hospital ♦ + and Guthrie Clinic, Sayre, Pennsylvania. D

THE HOSPITAL♦ FOR CRIPPLED CHILDREN, Park Avenue, Newark 4, New Jersey, announces that applications for residency in orthopedic surgery from July, 1958 to 1962 are now being considered; service fully approved for adult and children's orthopedics. D

ANAESTHESIOLOGY—APPROVED RESIDENCY; training in all phases of anaesthesia, acute; Dr. Frank Ogg, Long Island Hospital,♦+ 111 E. 70 St., New York 21, New York; vacancies beginning July 1st. D

(Continued on page 111)

from *head* to *toe*

CEREVIM-fed children showed greater clinical improvement, in the following nutrition-influenced categories, than children fed on ordinary unfortified cereal or no cereal at all:[1]

Here's why: CEREVIM **is not just a cereal.**

Much more: CEREVIM **provides** *8 natural foods:* **whole wheat meal, oatmeal, milk protein, wheat germ, corn meal, barley, Brewers' dried yeast and malt – PLUS added** *vitamins* **and** *minerals.*

CEREVIM

CEREALS + VITAMINS + MINERALS

1. "A Study of Enriched Cereal in Child Feeding" Urbach, C.; Mack, P. B., and Stokes, Jr., J. Pediatrics 1:78, 1948.

*Cerevim contains neither vitamin A nor C, but apparently exercises an A-and-C sparing effect attributed to its high content of predigested protein and major B vitamins.

SIMILAC DIVISION M & R DIETETIC LABORATORIES, *Columbus 16, Ohio*

An efficient therapeutic agent in peptic ulcer therapy should . . . reduce gastric acidity promptly to a pH of 3.5 or 4 and for a prolonged period* . . . have sufficient reserve neutralizing power to withstand the continuing secretion of gastric acid . . . not produce systemic alkalosis or an alkaline urine . . . not alkalize the gastric contents . . . be non-gas forming and non-irritating . . . be palatable. *Aspogen meets these requirements.* Aspogen® brand of dihydroxy aluminum aminoacetate N.N.R. is indicated in the treatment of peptic ulcer and for symptoms of hyperchlorhydria. It is available as soft, palatable 0.5 Gm. tablets sealed in cellophane in cartons of 100 or in bulk in bottles of 500. *Literature on request.*

EATON LABORATORIES, INC., NORWICH, N. Y.

*Holbert, J. M., Noble, N. and Grote, I. W.: *A Study of Antacid Buffers. II. Prolonged Neutralization*, J. Am. Pharm. A. (Sci. Ed.) 37:292, 1948.

Data in graph from Krantz et al.: J. Pharm. & Exper. Therap. 82:247, 1944. 0.5 Gm. dihydroxy aluminum aminoacetate in 25 cc. synthetic gastric juice.

Aspogen for peptic ulcer

(Continued from page 108)

APPROVED ANESTHESIOLOGY RESIDENCY—available July 1, 1950; university hospital.*+ Apply: Department of Surgery, Section on Anesthesiology, University of Louisville Medical School, Louisville, Kentucky. D

RESIDENCY IN RADIOLOGY—JULY 1ST; ONE 3 year appointment; to graduate grade A school only; 274 bed hospital.*+; approved AMA, ACR. Apply: Dr. McCandliss, Butterworth Hospital, Grand Rapids, Michigan. D

TWO RESIDENT PHYSICIANS—MUST BE ELIGIBLE for license in Minnesota; 150 bed general hospital; $200 per month plus 2 room apartment or $240 per month; positions opening July 1st. Apply: Administrator, St. Luke's Hospital, St. Paul, Minnesota. D

HAVE A VACANCY—FOR AN INTERNSHIP; STARTing July 1st; 240 bed hospital.+ in Florida; approved by ACS and internship approved by AMA. Tampa Municipal Hospital, Tampa, Florida. D

ENT RESIDENT WANTED—APPOINTMENT AVAILable July 1, 1950; full maintenance. Apply: Samuel Soskin, MD, Dean, Michael Reese Hospital.*+ Postgraduate School, 29th & Ellis Ave., Chicago 16, Illinois. D

WANTED—INTERN OR RESIDENT; ON APPROVED rotating or approved service; in fully approved general hospital.*+; in Southeast; salary and full maintenance; those with previous surgical training preferred. Box 9320 D, % AMA.

ANESTHESIOLOGY RESIDENCY—APPROVED; EXcellent training in all phases of anesthesia; male or female; 1 year, July 1st; $150 monthly; uniforms and full maintenance. Unity Hospital.*+ 1545 St. Johns Place, Brooklyn, New York. D

APPROVED ASSISTANT RESIDENCY IN SURgery available; resident residency for the 1st year; 2 & 1 year period, progress to surgery; approved by the AMA and the American College of Surgery; is available for the period starting July 1, 1950. Applicants interested should apply: Superintendent, Norfolk General Hospital.*+ Norfolk, Virginia. D

OTOLARYNGOLOGY—ASSISTANT RESIDENCY; teaching hospital.*+; 2 or 3 year service; including broncho-esophagology and rhinology; AMA residency approved; available July 1, 1950. Long Island College Hospital, 340 Henry St., Brooklyn, New York. D

oral hospital.*+; in metropolitan Philadelphia practice for general practice; weekly clinical meetings; diplomat and full time preferred; other specialties invited. Apply: Director, The Chester County Hospital, West Chester, Pennsylvania. D

WANTED — RESIDENTS IN OBSTETRICS AND IN internal medicine; to begin July 1, 1950; in 231 bed general hospital.*+; serving 11,351 admissions in 1949. Write: Chairman, Resident Committee, St. Alexis Hospital, Cleveland, Ohio. D

RESIDENTS — FOR JULY 1, 1950; ROTATING residencies available in 15 bed, well equipped general PATHOLOGY RESIDENT — VACANCY; OCCAsioned by [illegible]; hospitals; available [illegible] 1 to 3 years training by AMA.* 1 certified pathologist; active laboratory; 500 surgicals; 100 autopsies; diplomat pathologist desired. Apply: Director, Professional Department, Norfolk General Hospital.*+ Norfolk, Virginia. D

RESIDENCIES IN MEDICINE AND SURGERY — available beginning July 1, 1950; 325 bed general hospital.+; approved for straight medical and surgical residency training; board certification; salary excellent with full maintenance. Apply: Chief Surgeon, Missouri Pacific Hospital Assn., 1727 South Grand Blvd., St. Louis 4, Missouri. D

WANTED—RESIDENT; 150 BED MODERN GENERAL voluntary hospital; approved by ACS; maintenance plus $175 monthly. Box 9455 D, % AMA.

WANTED — RESIDENT IN PATHOLOGY; FOR 3 board approved service; 1 to 3 years; begin July 1, 1950; 500 bed general hospital.*+; large surgical and autopsy service; active teaching program. Apply: Dieter Hyde Charles, Administrator, Good Samaritan Hospital, Cincinnati, Ohio. D

RESIDENTS WANTED—FOR NEW HOSPITAL.+ ADdition for the study of acute medical, surgical and orthopedic problems; $150 per month with maintenance. Apply: Superintendent, Jewish Sanitarium and Hospital for Chronic Diseases, 56 East 68th Street, Brooklyn 3, New York. D

WANTED—RESIDENT PHYSICIAN; FOR A 50 BED general hospital; in Tennessee; $200 per month and an unsurpassed opportunity for training in general practice. Apply: Administrator, North Detroit General Hospital, Detroit 12, Michigan. D

WANTED—PHYSICIAN; JULY 1ST; IN TUBERculosis hospital.+ approved for residency; in midwest university city; service includes a great deal of internal medicine and chest surgery; living quarters and maintenance furnished; state license and citizenship required. Box 9474 D, % AMA.

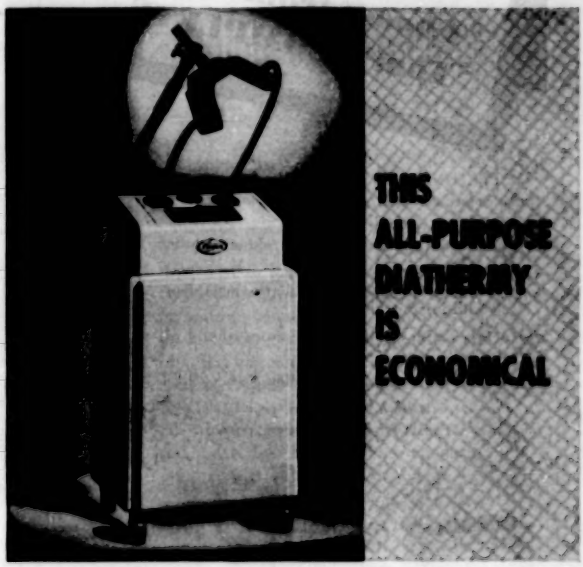
PATHOLOGY RESIDENTS — TWO APPOINTMENTS available; in 440 bed, fully approved, teaching hospital.*+; in metropolitan New York; opportunity for basic science work; lodging, board and uniforms furnished; no salary; available July 1, 1950. Box 9479 D, % AMA.

WANTED — ORTHOPEDIC RESIDENT PHYSICIAN; orthopedic hospital; metropolitan Washington, D.C.; non-approved; leads under 2 surgeons diplomates American Board; five in; start June 15th. Write: Anderson Orthopedic Hospital, 2155 Army-Navy Drive, Arlington, Virginia. D

WANTED — GENERAL RESIDENT; MUST BE graduate of class A school; position open July 1st; salary $200 per month with living quarters provided by 4.+ room hospital; completely furnished. Apply: Lafayette Home Hospital, Lafayette, Indiana. D

RADIOLOGY RESIDENT—JULY 1, 1950; FIRST YEAR appointment with basic science opportunities; in 600 bed, fully approved, teaching hospital.*+; New York City; lodging, board and uniforms furnished; no salary. Box 9179 D, % AMA.

(Continued on next page)



The MF-49, adaptable to all recognized diathermy technics, is illustrated here with the contour applicator. Air-spaced electrodes, induction cable, and electrodes for cuff technic can also be used. A smooth current is provided for minor electrosurgery.

Accepted by the A.M.A. Council on Physical Medicine and Rehabilitation, the Federal Communications Commission and the Underwriters Laboratories. Price of Unit with contour applicator as illustrated $567.50 F.O.B. Factory.

The Burdick MF-49
UNIVERSAL DIATHERMY

Let us send you literature, including prices. Just jot down "MF-49" on your card or letterhead, and mail to —

Burdick
THE BURDICK CORPORATION
MILTON, WISCONSIN

Choose from the Line That's COMPLETE

The PELTON *line affords the widest selection of private office sterilizers offered by any manufacturer:*

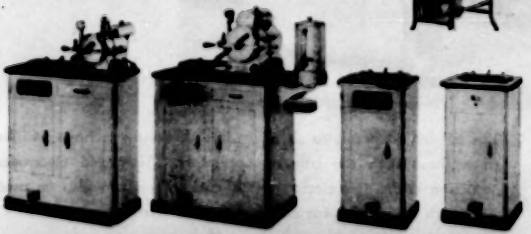
Portable Sterilizers, 8 to 20 inches, automatic or manual control, bright or satin chrome finish.

Cabinet Models featuring enamel or laminated tops, with or without timer, double or single door . . . all with interior illumination.

Autoclaves with selective temperature control at no extra cost.

Water Sterilizers in 2- and 5-gallon sizes.

Price conscious or luxury minded, your logical choice is PELTON. *Write for complete details.*



PELTON

"OPEN-FLAP"® HYGEIA BAG ALL THESE FEATURES

1. Solid Leather, Natural Grain. 2. Two Rod Pockets. 3. Sanitary Rubber Lined Throughout. 4. Deep Slide Handles. 5. Outside Card Holder. 6. Solid Brass Hasp & Lock. 7. Full Length Side Pocket with Adjustable Loops.

No. 816 Size 13x9x6—$25.00 No. 840 Size 17x9x7—$30.00

Both sizes made in Army Russet or Black

SEND FOR BROCHURE AND NAME OF YOUR DEALER

A DISTINGUISHED BAG WITH *Distinguishing* **FEATURES**

for the Physician

"OPEN-FLAP"®

HYGEIA MEDICAL BAG

...It holds 'lb more!

Here is a bag physicians have found both practical in use and distinguished in appearance. The famous patented "OPEN-FLAP"® feature allows the bag to be opened to full length and each of the top, allowing it more room for packing. It is the only Medical Bag that can be packed to the very top and easily zipped closed without crushing or jamming the contents. Made of fine bag grade leather by craftsmen, the "OPEN-FLAP"® Hygeia is preferred by doctors everywhere.

NATHAN PRODUCTS CORP. • 2157BL PROSPECT AVE. • NEW YORK 57, N.Y.

(Continued from preceding page)

ANESTHESIOLOGY RESIDENCY — TWO YEAR APPROVED residency available; stipend, maintenance; full-time diplomate charge of department. Address: R. V. Muir, M.D., Director, Dept. Anesthesiology, Abington Memorial Hospital,*† Abington, Pennsylvania. D

APPLICATIONS BEING RECEIVED — OBSTETRICS: for July 1, 1936, AMA approved; three-year rotating program; $40 month; $120-$300 per month after completion; private charge of Lieutenant-Commander. Apply: Chief, Norfolk General Hospital,*† Norfolk, Virginia. D

RESIDENT IN ROENTGENOLOGY — JULY 1, 1936; 325 bed hospital; approved ACR and AMA; affiliated with medical school; 1 year training approved by Board of Radiology. Apply: Dr. J. Arendt, Mt. Sinai Hospital, Chicago, Illinois. D

RESIDENT IN MEDICINE—AMA AND BOARD APPROVED; 1000 medical admissions; active and patient. Fairview Park Hospital,*† 3305 Franklin Blvd., Cleveland 13, Ohio. D

APPROVED RESIDENCY—IN CHEST DISEASES; in institute of 75 beds; specialization, 6 months; $50 month. Apply: Dr. Jacob Levy, Director, Jewish Consumptives Relief Society of Cincinnati, and Isaac W. Bone Asylum, Mount Airy, Cincinnati, Ohio. D

INTERNSHIPS AND MIXED RESIDENCIES—AVAILABLE July, 1936; AMA approved 225 bed general hospital,*†; full maintenance; $240 per month; 2 positions open; special arrangements married doctors. Apply: Administrator, Mercy Hospital, Hamilton, Ohio. D

RESIDENTS WANTED AT ONCE; MUST BE A graduate of grade A school; rotating service; 250 bed hospital*†; approved for intermediate and mixed residencies; salary $240 per month plus maintenance. Mercy Hospital, Peoria 7, Illinois. D

OB-GYN RESIDENCY — THREE YEAR APPOINTment; to begin July 1, 1936; affiliation with University of Michigan for last year. Write: Superintendent, Harper Hospital,*† Detroit, Michigan. D

APPLICATIONS BEING RECEIVED—INTERNAL medicine; for July 1, 1936; AMA approved; three-year program; $40 month; $120-$300 per month after completion; private charge of Lieutenant-Commander. Apply: Chief, Norfolk General Hospital,*† Norfolk, Virginia. D

APPROVED GENERAL PRACTICE RESIDENCY — northern Rocky Mountain area; $100 per month starting salary. Box 9168 D. % AMA. D

RESIDENTS—TWO OPENINGS JULY 1st; FOR A mixed residency; 125 bed general hospital,*†; salary $225 per month with room, board and laundry. Apply, Superintendent, Newcomb Hospital, Vineland, New Jersey. D

RESIDENT MEDICAL DIRECTOR — PSYCHIATRIST with Ohio license or eligible preferred; private 100 bed psychiatric hospital*†; approved residency training; organized visiting staff; salary and residence for family; full maintenance self and wife. Box 9131 D. % AMA. D

WANTED—TWO RESIDENT PHYSICIANS DEPtember 1, 1936, and 1 resident physician January 1, 1937; for establishment containing following modern departments of approved hospital and large university hospital; approved by Council on Medical Education; rotating service; graduate of class A medical school; 6 months' internship required; $50 per month; 1 year; opportunity for graduate work in medical school. Address: Medical Director, Box 9132 D. % AMA. D

WANTED—RESIDENT IN MEDICINE; FOR FULLY approved residency in 207 bed private general hospital*†; must be graduate of approved medical school in United States or Canada; starting July 1, 1936; $40 per month; full maintenance; rest-free period each month and $75 a month; a few apartments large enough for physician, wife and children. Apply: Superintendent, Methodist Hospital, 1931 W. Wilson Ave., Chicago 40, Illinois. D

RESIDENT IN ANESTHESIOLOGY — BEGINNING July 1 or 15 1936; fully approved; expanded and integrated teaching program in spinal, local, regional and therapeutic nerve blocking; salary $1200 per year with full maintenance. Apply: E. Fred Adams, M.D., St. Catherine's Hospital,*† 120 Bushwick Avenue, Brooklyn 6, New York. D

RESIDENT IN PSYCHIATRY—ONE OR TWO YEAR appointments in a large active psychiatric hospital + in Connecticut; approved for residency; attractive salary and good living conditions; vacancies are also available for internship physicians. For details write: Dr. Edgar C. Henry, Superintendent, Connecticut State Hospital, Middletown, Connecticut. D

RESIDENT—RADIOLOGY; BOARD APPROVED FOR 2 years; opportunity previously there intending to eventually take Board examination; stipend $50 month; for July 1, 1936. For further details apply: Dr. Gaston H. Clendenin, Department of Radiology, Methodist Hospital,*†; Brooklyn 15, New York. D

RESIDENCY IN INTERNAL MEDICINE—BEGINning July 1, 1936; 2 year rotating program; approved by Council on Medical Education; 1 year approved by Board of Internal Medicine; 200 bed general hospital,*†; Apply: Superintendent, The Long Hospital, Toledo 6, Ohio. D

WANTED—1ST ASSISTANT AND 2ND ASSISTANT resident to medicine; for AOA approved hospital*†; with AMA approved program; vacancies occurred due to illness of those ordered away; Apply: Administrator, Baltimore General Hospital, Baltimore 24, Maryland. D

ANESTHESIOLOGY — APPROVED RESIDENCY; full course of training in general anesthesia; write: Alfred E. Lower, M.D., Boston Lying-In Hospital,*†, Parkman Street, Boston, Massachusetts. D

ANESTHESIOLOGY—APPROVED AVAILABLE; STIpend and full maintenance. Address: Dr. John G. Adams, Chief, Anesthesia Service, Binghamton Memorial Hospital, 720 Harrison Avenue, Binghamton, New York. D

ANESTHESIOLOGY RESIDENCIES—FULLY APproved; graduate training offered; stipend and maintenance; for particulars write: Emmett Carter, M.D., Director, Temple University Hospital,*†, 3400 North Broad St., Philadelphia, Pennsylvania. D

(Continued on page 114)

V 1
195

Richard Hudnut Home Permanent

accepted for advertising in the Journals of the A.M.A.

The Advertising Committee of the American Medical Association, in accepting for advertising the Richard Hudnut Home Permanent, indicates that it finds that this product meets the same high standards of quality and safety demanded of the other accepted Richard Hudnut preparations. Unsurpassed in their field, Hudnut products are produced under the same conditions of scientific control with which pharmaceutical products are produced.

"One cannot always see it written on the patient's face."[1]

Mild depression

is extremely common in everyday practice. But it is not always easy to recognize. In most cases the patient comes to his physician complaining of one or more somatic symptoms.

Outwardly he may even appear cheerful. More often than not he admits his depression only in response to a direct question about his mood. ***It is a diagnosis that is often missed.***[1]

In the depressed patient, 'Benzedrine' Sulfate is often dramatically effective in renewing interest and optimism and in restoring the capacity for physical and mental effort.

1. Watts, C.A.H.: Endogenous Depression in General Practice, Brit. M.J. 1:11, 1947

Benzedrine® Sulfate

One of the fundamental drugs in medicine

AT THE A. M. A. CONVENTION

Make Our Doctors' Lounge Your Club

You'll find it on the main floor . . . designed for your comfort. Drop in. Rest . . . read . . . smoke . . . or just chat.

If you like, have your mail addressed c/o Philip Morris Doctors' Lounge, Civic Auditorium, San Francisco.

Ask at the Lounge for any service that you fancy. We can't promise to deliver, but we certainly promise to try.

Philip Morris

& CO., LTD., INC., 100 PARK AVE., NEW YORK

Be sure to visit the Philip Morris Exhibit . . . Space H-3 and I-1

(Continued from page 112)

ASSISTANT RESIDENT PSYCHIATRIST—100 BED private psychiatric hospital *+; approved for training; salary and maintenance; July 1, 1952. Box 9432 D, % AMA.

RESIDENT AND ASSISTANT RESIDENT—IN RADIology; beginning July 1, 1952; large eastern teaching hospital.*+ Box 9425 D, % AMA.

WANTED—JULY 1ST; BECAUSE OF UNEXPECTED complications, 1 assistant surgical resident; in completely approved hospital *, aggregating 250 beds; $100 a month and maintenance. Box 9430 D, % AMA.

APPROVED RESIDENCIES—AVAILABLE IN MEDicine, general practice and pathology; July 1, 1952; 250 bed general hospital *+; with active teaching program. Box 9422 D, % AMA.

RESIDENT POSITIONS OPEN—100 BED, MODERN, progressive, general, voluntary hospital; surgery and obstetrics are particularly active; maintenance plus $300 per month; salary cannot be received. Address Hospital, 30 Sumner Ave., Brooklyn 5, New York. D

APPROVED OPHTHALMOLOGY RESIDENCY—PENNsylvania Hospital *+; under certified ophthalmologist; post-graduate course in ophthalmology or previous equivalent training required; 1949 out-patients 8407, admissions 217; refractions 2685; consultations 340; operations 271; cataract extractions 20; associated with group of 12 specialists. Box 9369 D, % AMA.

24 MONTHS ROTATING INTERNSHIPS, 4; BEGINning July 1, 1952; AMA approved; $75 plus maintenance; 100 bed unit; 5 in institution. Address Frank Sandel, 4 East Franklin Blvd., Cleveland 14, Ohio. D

INTERNSHIPS, MEDICAL AND SURGICAL ASSIStantships—1 each; commence July 1, 1952; fully approved hospital *+; 300 beds; 35 interns; Yonkers adjoins Bronx; 1 hour by subway from Manhattan; AMA approved schools; $1200 yearly plus full maintenance; for graduates $1700 to $2000 yearly plus maintenance. Grand Hospital, Yonkers 2, New Jersey.

AVAILABLE—TWO APPROVED INTERNSHIPS, JULY 1952; 1 approved general residency, July 1953; 1 approved OBS-GYN residency, January 1953. Apply: Superintendent, St. Francis Hospital,* 338 East 142nd Street, Bronx 54, New York.

APPROVED ROTATING INTERNSHIPS AND RESIdencies: in surgery, pathology, psychiatry and OBS-GYN; two internships, beginning July 1952; salary $150, complete maintenance; also vacancies for assistants in psychiatry and for 1 first year surgical residency; in a 3 year recently approved program, July 1, 1952; salary $150, complete maintenance. Write: Administrator, Herrick Memorial Hospital,*+ Berkeley 4, California. D

WANTED—MALE INTERNS AND HOUSE PHYsicians; general hospital *+; approved; 165 beds, 25 bassinets; rotating service; good living quarters; salary $125 per month and maintenance. Apply: Director of Professional Service, Apply: Superintendent, Lutheran Hospital, 3840 Park, 660 Bl., St. Louis 10, Missouri. D

ALBANY HOSPITAL*+ AND ALBANY MEDICAL College—offer 2 year residency in anesthesia; to graduates of approved medical schools who have completed 1 year of an approved internship. For further information write: Cyril E. Barnett, M.D., Albany Hospital, Albany 1, New York. D

WANTED—INTERN; 100 BED HOSPITAL; TRAINing program approved AMA, ACS; salary $150; internship runs one calendar year; salary $200; graduate from 4 school Kanawha Valley Hospital, Charleston, West Virginia. D

RESIDENT AND ASSISTANT RESIDENT—BEGINning July, 1952; for 250 bed tuberculosis service; division of large eastern teaching general hospital *+; full credit toward specialty board requirements. Board Internal Medicine, Box 9322 D, % AMA.

APPROVED ENT RESIDENCY—AVAILABLE JULY 1, 1952; also, approved residency in neurology and psychiatry. Albany Hospital,*+ affiliated with Albany Medical College, Albany, New York. Write: Administrating office. D

ANESTHESIOLOGY RESIDENCY—CORRELATED with other specialty training; 1 or 2 year appointments; male or female; $ 1 immediately; plus maintenance. William J. Martin Jr., MD, Director, Department of Anesthesiology, St. Vincent Hospital,*+, Worcester, Massachusetts. D

GENERAL RESIDENCY—TO START JULY 1, 1952; salary open; 300 bed general hospital,*+ approved by the American College of Surgeons. Apply: Superintendent, Commonwealth Memorial Hospital, Sunbury, Pennsylvania. D

WANTED—MALE RESIDENT PHYSICIAN; 60 BEDS, general hospital; West Virginia; ACS approved; requirements; 1 year internship, graduation from A medical school; remuneration $100 per month and full maintenance. Box 9315 D, % AMA.

POSITIONS STILL AVAILABLE—FOR INTERN AND general resident; AMA and ACS approval; very active service; applications limited to graduates of US medical schools; positions open July 1st. Apply: Superintendent, Mercy Hospital,*+ Cedar Rapids, Iowa. D

WANTED—RESIDENTS FOR GENERAL PRACTICE training; 400 bed hospital *+; AMA approved for internship and major specialties; well balanced teaching program. Write: Superintendent, Wesley Hospital, Wichita 6, Kansas. D

WANTED—RESIDENTS IN GENERAL PRACTICE; appointments for 1 year beginning July 1, 1952; 250 bed hospital; averaging 150 active patients; also daily clinics; salary $200 per month plus meals; quarters available for single residents; applicant must be graduate of approved medical school and qualified for license in Nevada. Apply: Administrator, Washoe Medical Center, Reno, Nevada. D

ANESTHESIOLOGY RESIDENCIES — AT UNIVERsity of Minnesota, Minneapolis Veterans Administration Hospital and associated hospitals; enlarged clinical services and 3 months approved basis; an average available each month. Address: Ralph M. Knight, MD, Director of Anesthesiology, University of Minnesota Hospital, Minneapolis, Minnesota. D

(Continued on page 118)

The NEW Dynamax Twenty

A ROTATING ANODE TUBE FOR LIGHT TUBE STANDS

The Same Size and Weight as Conventional Shockproof Stationary Anode Tubes

Here is the announcement for which users of diagnostic x-ray equipment with light-weight tube stands have been waiting. No longer is it necessary to invest in heavy duty equipment to benefit from the improved radiographic definition provided by a rotating anode tube. The Dynamax "20", newest addition to the already well known Dynamax series, will directly replace your present stationary anode tube*.

For complete information write to Machlett Laboratories, Inc., Springdale, Conn.

The Dynamax "20" will be on display at the meeting of the A.M.A. in San Francisco in June and at the International Congress of Radiology in London, England in July.

* Liberal trade-in allowance for your present tube.

INSTALL A DYNAMAX "20" FOR:

- Maximum voltage rating of 300 P.K.V.
- Maximum current ratings of 100 MA self-rectified; 200 MA full-wave rectified.
- 1.3 mm focal spot size for sharp definition with any technique.
- 20° target angle for full film coverage at unusually short distances.
- Same dependable performance and long life inherent in all Dynamax rotating anode tubes.

DYNAMAX "20"
Shockproof Rotating Anode Tube

MACHLETT

Others ask up to $10.00

THIS HIGH GRADE
Sacro-Iliac
BELT Our Price $4.50

Beautifully made of six inch orthopedic webbing, well reinforced, supplied with perineal straps. High grade materials and workmanship throughout. Offered for a limited time only in order to keep our shop busy. Take measurements around the hips three inches below the iliac crest.

F. A. RITTER CO.
250 Woodward Ave., Detroit, Mich.

Have You Received Our New Catalog?

We ship parcel—abdominal belts, $2.50; by parcels, elastic stockings, anklets, knees, $3.50; elastic abdominal supports, $5.00; elastic supports, $10.00; elbow, $3.50; wrist, $2.50; thigh, special knee, $10.00; ea., ch.

ALPA PRISMA REFLEX and ALPA REFLEX
35MM SUPER PERFORMANCE QUALITY
MIRROR REFLEX PLUS COUPLED RANGEFINDER
DESIGNED FOR THE MEDICAL PROFESSION
Photographic Records From Your Microscope

Micro-Photography of any desired subjects, with complete detail, by reproduction of only a small portion of the field of view, etc., has undoubtedly suggested that using your ALPA a question sort of any microscope for micro-photography.

Comparative list of practical accessories and complete range of focal lengths make the ALPA the most versatile, reliable and easily operated camera for micro-photography.

PRISMA REFLEX REFLEX
$327.70 with f:2.8 lens $289.50
435.50 with f:1.9 lens 327.50

For complete illustrated information, write for free illustrated catalogue A.

ARCHIVES OF INTERNAL MEDICINE

A monthly storehouse of clinical and experimental studies and practical procedures for internist and general physician. Noteworthy advances are given in the original articles. Book Reviews and News and Comment offer current information. Medical Reviews thoroughly cover literature on a selected topic, and epitomize articles for the preceding year. Well Illustrated.

$10.00 a year Canada, $10.40 Foreign, $11.00

AMERICAN MEDICAL ASSN., 535 N. Dearborn St., Chicago

ILLE equipes expanded manufacturing facilities

Ille Electric Corporation—makers of the very finest in Sobaque and other Physical Therapy Equipment—is proud to announce to its many customers and friends, its recent removal from Long Island City to new, larger quarters in Freeport, Long Island. These new quarters, consisting of a modern, well-equipped, one-story brick structure, will permit greatly improved manufacturing and service facilities for Ille's distinguished line of physical therapy apparatus, both portable and stationary—precision-engineered for hospitals, rehabilitation centers, industrial clinics, and physicians' offices.

ILLE ELECTRIC CORPORATION

old address
35-01 Thirty-third Street
Long Island City, New York

New Address
80 SEAL ROAD
FREEPORT, LONG ISLAND, N. Y.

"SEE DEMONSTRATION in BOOTH No. M-10 at SAN FRANCISCO."

(Continued from page 116)

WANTED — TWO RESIDENTS IN MEDICINE, 3-year service; assistant in general surgery; 1-year service; and resident in radiology; 600 bed general hospital, fully approved; preferably physicians with internship training only. Sid. Bernstein Larsen, Medical Bureau, Palmolive Building, Chicago. D

RESIDENTS—FOR BUSY GENERAL HOSPITAL; IN suburban area of Chicago; 125 bed; 10,075 admissions in 1948; approved by AMA for general practice; salary $125 per month; complete maintenance and apartment available; salary increased at regular intervals to proportion to ability. Medical Director, General Hospital, Berwyn, Illinois. J. McCarthy, Administrator. D

RADIOLOGY RESIDENT AVAILABLE—600 BED general hospital * *; approved by AMA and American Board of Radiology. Apply: Mount Carmel Mercy Hospital, Detroit 35, Michigan. D

APPROVED RESIDENCIES—AVAILABLE AT GLENN Dale Sanatorium, * the tuberculosis sanatorium of the District of Columbia; salary $2400 per annum; 1 year internship required. Address Superintendent, Glenn Dale Sanatorium, Glenn Dale, Maryland. D

WANTED — TWO RESIDENTS; SMALL GENERAL hospital staffed by American Board specialists; excellent opportunity for training and maintenance; near Chicago. Sid. Bernstein Larsen, Medical Bureau, Palmolive Building, Chicago. D

RESIDENCIES WANTED

WANTED—APPROVED GYN OR 2/3-GYN RESIDency; July 1 or after; age 34; 3 years' hospital training; 27 months' military service; married; family; Protestant; good health; preferably considered. Box 9404, % AMA.

LOCATIONS WANTED

GENERAL PRACTITIONER—WISHES BUY HOMEopathic combined or separate; New York state; or part-ownership with physician wanting retire; any town; Protestant, social field; minimum community 2500. Box 9109 E, % AMA.

PARTNERS WANTED

PARTNERSHIP SOUGHT—WITH COMPETENT INternal or group who will teach me a specialty; 6th. surgery; 2 years' internal medicine; 2 years' general; 1947 graduate A school. Box 9407, F, % AMA.

LOCUM TENENS WANTED

LOCUM TENENS—FLORIDA LICENSED; WANTED at once for vacation relief June and July; possibility for future association; salary open; 4 bed clinic; also available, Osceola Hospital, Kissimmee, Florida. G

WANTED—LOCUM TENEN; FOR ONE YEAR BEginning July 1, 1949; large general practice in Ohio; new and good salary available for right man; regular physician plans additional post-graduate training. Box 9362 G, % AMA.

LOCUM TENENS WORK WANTED

LOCUM TENENS WORK WANTED—FOR JULY AND August; by well trained single physician; 37; 3 years internship; 1 year residency in medicine; 2 years of teaching hospital on East Coast. Box 9391 E, % AMA.

LOCUM TENENS WORK WANTED—FOR JULY, 1949; by diplomate; certified in diabetes and therapy; 35; now employed; also Middle Atlantic states only. Box 9370 E, % AMA.

NURSES WANTED

NURSE ANESTHETIST—NEW ENGLAND COAST; 60 bed approved hospital in famous resort area; salary $4800 and maintenance; 5 day week; vacation; 24 hour. Allen Agency, 511 Kales Bldg., Detroit 26, Michigan.

SITUATIONS WANTED

ANESTHETIST POSITION WANTED—PREFER Middle West; trained in spinals, intravenous, endotracheal, gas, ether; for surgery only; prefer small private hospital or work for 1 surgeon; have 7 years experience; chief executive of present position 5 years; belong to MAANA. Box 9403 I, % AMA.

INTERNIST—CLINIC TRAINED; ELIGIBLE AMERIcan Board of Internal Medicine this year; age 31; married; desires position in medium or large hospital; location with group, clinic, or internist beginning June. Box 9371 I, % AMA.

PREOPTOMETRIST—WITH MEMBER OF AMERICAN Board of Surgery; age 25; married; veteran; Army; 1 year general practice; 2 years approved residency; 1 year preoptometric course for Master of Science; available as group; available July 1949. Box 9373 I, % AMA.

RADIOLOGIST—DIPLOMATE 1942; DESIRES ASSOciation or hospital service; Board; 12 Committee, Pennsylvania, New York, Wyoming and Texas; Jewish; 39 years old; married. Box 9360 I, % AMA.

PHYSICIAN-SURGEON—31; FOUR YEARS EXPERIence, small hospitals and industrial practice; desires with hospital seeking combination assistant practitioner; business protected. Box 9400 I, % AMA.

WANTED—BY AMERICAN PHYSICIAN IN JAPAN; position as foreign trader for drugs, medical and surgical supplies. Box 9422 I, % AMA.

RADIOLOGISTS—DIPLOMATES AMERICAN BOARD of eligible for examination; opportunities in private practice, group, partnership, hospital treatment, X, W, limitations, MD, Professional Bureau, American College of Radiology, St. Joseph's Mercy Hospital, Ann Arbor, Michigan. I

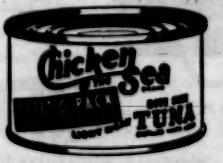
TUBERCULOSIS — EXPERIENCED IN HOSPITAL administration; surgery, thoracic surgery and bronchoscopy. Box 9384 I, % AMA.

(Continued on page 138)

VAN CAMP LABORATORIES
A DIVISION OF VAN CAMP SEA FOOD CO., INC.

Introduce
2 OUTSTANDING NEW FOODS...

Both of which have been accepted by the Council on Foods and Nutrition of the American Medical Association.



1
DIETETIC
TUNA

Due to its low salt content, DIETETIC TUNA is suitable for use in the compounding of low-sodium diets for the dietetic management of several diseases.

Its cholesterol and fat content are very low and it is, therefore, an excellent source of protein in dietary treatment.

DIETETIC TUNA is a very valuable adjunct to restricted diets for WEIGHT REDUCTION and in pregnancy. It supplies a well proportioned source of all the necessary amino acids without increasing the fat and carbohydrate content of the diets.

Because of its high protein content, its use is recommended also in the feeding of the aged and in physical rehabilitation.

2
BABY FOOD
STRAINED TUNA

The outstanding feature of this product is its exceptionally high protein content . . . more than 92% of the total solids supplying a rich source of amino acids, the essential building blocks of body proteins. (1)

Noteworthy is the high content of Animal Protein Factor and Vitamin B_{12}. Recent work has indicated that B_{12} may have special value in childhood nutrition. (2)

Another feature of BABY FOOD Strained Tuna is the *high fluorine content*. This element has recently gained special recognition, as it has been shown that satisfactory quantities of fluorine consumed during the *development of teeth* help protect against future dental decay. The amount of fluorine in most foods is usually lower than apparently required, and therefore BABY FOOD Strained Tuna should be a welcome addition to the diets of infants and young children. (3)

Because of its pleasant taste and smooth texture BABY FOOD Strained Tuna is well suited for dietary management of conditions where a *soft, low-residual diet* is indicated.

1. Dunn, M. S. "The Nutritional Value of Fish Proteins." (Institute of Food Technologists, San Francisco meeting, July, 1949.)
   Geiger, E. "Nutritive Value of Fish Protein" (in "Progress of the Chemistry of Organic Natural Products" Ed. by L. Zechmeister, 3 275 (1948)).
2. Wyatt, N. C., W. C. Fargo, J. H. Smith and J. Heilskov—"Growth Failure in School Children as Associated with Vitamin B_{12} Deficiency-Response to Oral Therapy." (Science, 110, 631 (1949).)
3. Editorial. "The Lancet" (London) Oct. 8, 1949, Page 664.
   McClure, F. J. "Fluorine in Foods," Public Health Reports, 64 1061 (1949).

Further information will be gladly supplied upon request.

VAN CAMP LABORATORIES

Division of Van Camp Sea Food Co., Inc. Terminal Island, California

SEE OUR EXHIBIT AT THE A. M. A. CONVENTION IN SAN FRANCISCO—BOOTHS C 40 AND C 42

Use

Desenex®

OINTMENT AND POWDER OF ZINCUNDECATE

In the Treatment and Prophylaxis of Fungous Infections of the Skin—especially

DERMATOMYCOSIS PEDIS

"ATHLETE'S FOOT"

The Undecylenic Acid-Zinc Undecylenate "Team" employed in the formulation of DESENEX Products insures—

Effectiveness

Virtual freedom from irritation

Rapid Action

OINTMENT

Undecylenic Acid	5%
Zinc Undecylenate	20%

Tubes of 1 oz.
Jars of 1 lb.

POWDER

Undecylenic Acid	2%
Zinc Undecylenate	20%

Sifter packages of 1½ ozs.
Containers of 1 lb.

Trial supplies and literature sent on request

W&T

Pharmaceutical Division

WALLACE & TIERNAN PRODUCTS, INC.

Belleville 9, N. J., U. S. A.

FD-22

(Continued from page 118)

OPHTHALMOLOGIST—BOARD ELIGIBLE; DESIRES association or assistantship; married; 27; completing 3 years training, basic course and university hospital, December, 1956; Ohio, California and Michigan license. Box 9344 I, % AMA.

OPHTHALMOLOGIST — AVAILABLE SEPTEMBER, 1956; 28; married; Protestant; completing 2 year residency and basic course; previous Army EENT for 2 years; desire association with individual or group. Box 9343 I, % AMA.

RESIDENCY OR PRECEPTORSHIP—IN EYE OR EENT; to complete training; mature; single; 12 months basic study EENT and 12 residency ENT; Roentgen National Board medical examiners. Box 9330 I, % AMA.

PSYCHIATRIST—EXPERIENCED ELECTRIC SHOCK and insulin coma therapies; institutional administration; mental hygiene clinic; substantial background; desire change. Box 9335 I, % AMA.

UROLOGIST—CERTIFIED; WISHES LOCATION with group or for single practice; an objective in partnership; Mid-West preferred; member AUA; over 15 years experience including AUS. Box 9325 I, % AMA.

SURGEON—36; EXCELLENT INTERNSHIP, RESI-dency; Board eligible; thoracic surgery; university full-time medical professor; desires private practice, association; immediately leaving secondary to ultimate opportunity. Box 9280 I, % AMA.

OTOLARYNGOLOGIST—KNOWLEDGE OF OPHTHAL-mology; Board eligible; completing 2 years residency EENT; veteran; age 36; desires position, assistant, group, private practice; small town considered. Box 9255 I, % AMA.

ORTHOPEDIC SURGEON—PASSED PART I; LACKS ½ year, certification; several years general private practice following 2 year internship; 2½ years residencies, orthopedic hospitals; 2 years orthopedic service, Major, USAMC; associate past several years, private orthopedic practice; seeks association group clinic; immediately available. Woodward Medical Bureau, 185 North Wabash, Chicago.

ANN WOODWARD, Director

USE THIS HALF-CENTURY-OLD MEDICAL PLACEMENT SERVICE

Our files are complete with the names of immediately available Diplomates of the American Boards, making consultation, now available to your Department in Medical Schools, Clinics, and Hospitals.

Others are interested in general practice, industry, administration, or in further training in the specialties.

Write us fully regarding your needs, in order that we may be sure to benefit with those the candidates and submit their complete credentials.

Our service is strictly confidential and without charge to employer.

WOODWARD *Medical Personnel Bureau*

EIGHTH FLOOR · 185 N. WABASH · CHICAGO 1

Our Fifty-Fourth Year

CERTIFIED OPHTHALMOLOGIST — 45; THREE years private general practice; well trained in excellent teaching hospitals; 2 years fellowship in ophthalmology; associate in ophthalmology in private practice past several years; graduate university base medical; full medical privileges available. Woodward Medical Bureau, 185 North Wabash, Chicago.

PATHOLOGIST — CERTIFIED IN PATHOLOGIC anatomy and clinical pathology; age 40; excellent background, experience and reputation; outline particulars to 1st letter. Box 9180 I, % AMA.

PATHOLOGIST — WITH EXTENSIVE EXPERIENCE all phases laboratory work; desires to connect with or purchase clinic laboratory; comprehensive description in 1st letter appreciated; commission basis preferred. Box 9150 I, % AMA.

WANTED — PRECEPTORSHIP; GENERAL SUR-gery; 26; Board eligible; completed basic 2 years approved surgical training; prior to and in military service; completing 2½ years approved surgical residency next 30; married; excellent health; willing to work; good personality. Box 9307 I, % AMA.

INTERNIST—BOARD ELIGIBLE; COMPLETING 3rd year residency July; diplomate National Board; veteran; age 29; desires position assistant, group or private practice; small town considered. Box 9264 I, % AMA.

RADIOLOGIST — 35; SEEKS LOCATION; PREFER hospital affiliation; diplomate American Board; 3 year Cook County Hospital training in diagnosis and therapy; Army and private hospital experience. Box 9049 I, AMA.

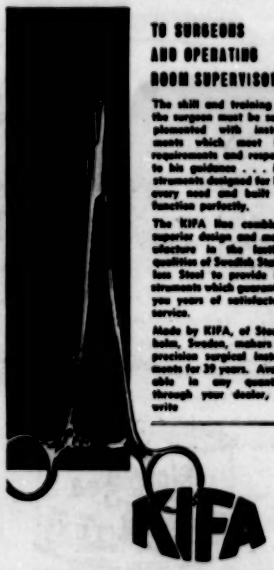
SURGEON—40; BOARD CERTIFIED; FORMER China Mayo Clinic; California license; veteran; desires association with group, clinic, or other surgeon in Southwest. Box 9430 I, % AMA.

ORTHOPEDIC SURGEON—39; DESIRES ASSOCIA-tion with Board certified orthopod; excellent training; completed years in Mid-West preferred; available July 1st. Box 9431 I, % AMA.

OBSTETRICIAN - GYNECOLOGIST — DIPLOMATE, American Board; year's residency in pathology; 3 years residency, obstetrics-gynecology, teaching hospital; 4 years' association with group as chief, department, obstetrics-gynecology. For further information, please write Bernice Larson, Medical Bureau, Peabody Building, Chicago.

ORTHOPEDIC SURGEON — BOARD ELIGIBLE; specialist training and recommendations; available immediately. Medical Placement and Mailing Service, Juniper Street, Atlanta, Georgia.

(Continued on page 122)



TO SURGEONS AND OPERATING ROOM SUPERVISORS

The skill and training of the surgeon must be supplemented with instruments which meet his requirements and respond to his guidance . . . Instruments designed for his every need and built to function perfectly.

The KIFA line combines superior design and manufacture in the lasting qualities of Swedish Stainless Steel to provide instruments which guarantee you years of satisfactory service.

Made by KIFA, of Stockholm, Sweden, makers of precision surgical instruments for 39 years. Available in any quantity through your dealer, or write

KIFA

A. JOHNSON & COMPANY INC.

(Agents for the United States and Canada)

630 Fifth Avenue, NEW YORK 20, N. Y.

SAFGARD

Because the SAFGARD pasteuriser has passed the rigid tests of many Public Health Authorities including negative Phosphatase tests and because SAFGARD is portable, sanitary, easy and economical to operate.

GUARD-IT MFG. CO.

1801 So. Laflin St., Chicago

AMERICA'S SCIENTIFIC NIPPLE

Doctors use and recommend Dietz-Good. All druggists.

PRESCRIBE OR DISPENSE

ZEMMER

A complete line of laboratory controlled rectal pharmaceuticals. Write for catalog

Chemist to the Medical Profession since 1903

THE ZEMMER COMPANY

Boundless Biologist

Dr. Alexis Carrel, outstanding biologist and surgeon, had a singular effect upon medicine with his tissue immortality experiment. He kept a tissue fragment from a chick embryo heart alive for years. He proved there is "intra-cellular" life after death until degeneration sets in, and applied proof of tissue immortality to the study of wound healings and tumors. Later, he helped develop an "artificial heart" to keep vital organs alive outside the body.

Born in France, Dr. Carrel carried out his life work in America. Skilled in vascular surgery, he was awarded the famed Nobel Prize in 1912 for success in suturing blood vessels and transplanting organs.

Dr. Alexis Carrel, 1873-1944

MEDICAL MILESTONES . . .

Page by page, the history of medical science in America is marked with noteworthy contributions of men like Dr. Alexis Carrel and his colleagues. Motivated by inward desires to serve, these men had the will and found the way to carry out their contributions under our voluntary, unregimented system of medicine.

Page by page, the history of Rexall Drug Company is also marked with progress. New, improved methods in research, development and control make it possible for Rexall to serve by supplying quality pharmaceuticals highly-regarded for their potency, purity, accuracy and dependability.

Rexall DRUGS

REXALL DRUG COMPANY • LOS ANGELES • BOSTON • ST. LOUIS, U.S.A.
Pharmaceutical chemists for more than 47 years

6 inch single-tipped swabs

Q-TIPS

Hospital Swabs

Mfd. by Q-TIPS, INC., Long Island City, N. Y.
Dist. by THE SEAMLESS RUBBER CO., New Haven, Conn.

(Continued from page 120)

INTERNIST — NOW COMPLETING FORMAL RESIDENCY (Board of American Board); training has included 2 years in hematology-cytohistology; during military service served as chief of laboratory; seeking association with group or another specialist. For further information, please write: Bernice Larson, Medical Bureau, Palmolive Building, Chicago. I

OBSTETRICIAN—QUALIFIED IN GYNECOLOGICAL surgery, however prefers straight obstetrics; graduate, Tufts Medical; 2 years naval service after internship; 3 years residency, obstetrics-gynecology followed by 2½ years preceptorship; DNB; immediately available. Woodward Medical Bureau, 185 North Wabash, Chicago. I

SURGEON — PARTICULARLY WELL TRAINED IN thoracic surgery; 2-year fellowship in general surgery; 2-year residency in thoracic surgery; MD in surgery; part I American Board completed. For further information, please write: Bernice Larson, Medical Bureau, Palmolive Building, Chicago.

DERMATOLOGIST—BOARD ELIGIBLE; HARVARD graduate; training under eminent specialists in country; limiting practice to dermatology. Medical Placement and Mailing Service, Juniper Street, Atlanta, Georgia.

WANTED—OPPORTUNITIES IN MEDICINE; AMONG our candidates are diplomates of American Boards qualified for posts in medical schools, clinics, hospitals; others are interested in general practice, industry, administration or in further training. Bernice Larson, Medical Bureau, Palmolive Building, Chicago.

SCIENTISTS WANTED

WANTED — CHEMIST; FOR POST OF LIBRARIAN; large pharmaceutical company; minimum of Master's Degree required; physician eligible; duties consist of scientific writing, abstracting, literature; knowledge of French, German desirable. 247, Bernice Larson, Medical Bureau, Palmolive Building, Chicago. E

WANTED — ASSISTANT DIRECTOR OF LABORAtories, 200 bed general hospital; administrative ability with background in one of sciences, preferably chemistry, required; $5000-$7000. 242, Bernice Larson, Medical Bureau, Palmolive Building, Chicago.

WANTED—SCIENTISTS, Ph.D's, AND CANDIDATES with basic training; opportunities with teaching and research institutions, hospitals and industry; salaries commensurate with ability; confidential. Bernice Larson, Medical Bureau, Palmolive Building, Chicago. E

PROFESSIONAL AND TECHNICAL AIDES

WANTED — ORTHOPTIC TECHNICIAN; FOR APproved eye hospital; salary open; give full details in 1st reply. Box 9350 L, % AMA. L

TWO LABORATORY TECHNICIANS—REGISTERED (ASCP); to work under certified pathologist. Address communications: Irving F. Glover, MD, Laboratory Director, St. Francis Hospital, Colorado Springs, Colorado. L

MEDICAL TECHNICIAN WANTED—ON OR BEFORE June 1st; by approved hospital * +; excellent salary with or without maintenance; Tidewater, Virginia. Write: Administrator, Riverside Hospital, Newport News, Virginia. L

WANTED — REGISTERED LABORATORY TECHNIcian; St. Joseph Hospital, Lorain, Ohio; 200 bed general hospital; salary open, details upon request. L

WANTED — WELL KNOWN PATHOLOGIST SEEKS licensed technician, bacteriology technician and research chemist; for 250 bed hospital laboratory and clinic, general laboratory technician for medical school, chemist; university medical center, Middle West. 241, Bernice Larson, Medical Bureau, Palmolive Building, Chicago. L

HEAD LABORATORY TECHNICIAN—ASCP REGIStration or equivalent; medium sized, approved, completely equipped hospital; fashionable eastern summer resort 21,000; certified pathologist supervises laboratory. 71781, Woodward Medical Bureau, 185 North Wabash, Chicago. L

CHIEF LABORATORY TECHNICIAN — REQUIRES degree, ASCP registration; large approved hospital, complete, modern facilities; salary open; suburb metropolis, $17,000, starting salary [illegible]. 71682, Woodward Medical Bureau, 185 North Wabash, Chicago. L

LABORATORY TECHNICIAN — SIX MAN, ACTIVE, general clinic laboratory staff 3 technicians; college community; mid-western resort location, 21,000 permanent salary + resort individual. 71682, Woodward Medical Bureau, 185 North Wabash, Chicago. L

WANTED — BLOOD TECHNICIAN; COMPETENT leader who can establish procedures demonstrating blood and tissue changes by tests of blood and body fluids; minimum of Bachelor's Degree and several years experience required; research laboratories, large group clinic and hospital; Pacific Northwest. 243, Bernice Larson, Medical Bureau, Palmolive Building, Chicago. L

LABORATORY TECHNICIAN — WILL TRAIN WELLqualified person capable assuming managerial responsibilities; new, attractive laboratory, small approved modern hospital, permanent progressive town; vicinity Lake Michigan. 71681, Woodward Medical Bureau, 185 North Wabash, Chicago. L

SHAY MEDICAL AGENCY
55 E. Washington Street
Chicago 2, Illinois

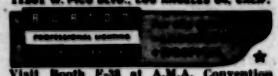
CHIEF LABORATORY TECHNICIAN: South; 50 [illegible] 100 AMA plan; 200 bed [illegible] hospital laboratory; 2½ technicians; [illegible]. Shay Medical Agency, 55 E. Washington, Chicago. L

HEAD X-RAY TECHNICIAN; Middle West; take charge of department; private clinic; 3 technicians and 1 clerk; room [illegible]; 12 full time doctors on staff and clinic has own 150 bed hospital; excellent salary [illegible]. L

LABORATORY TECHNICIAN: East; must be registered; prefer training in clinical chemistry; 750 bed hospital; fully approved; [illegible] to picturesque New England; $264.

(Continued on page 124)

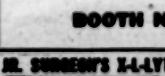
A BIG HOSPITAL-TYPE LIGHT...AT A LOW PRICE
A complete office light for illuminating all surfaces and cavities.
BURTON MANUFACTURING COMPANY
11301 W. PICO BLVD., LOS ANGELES 64, CALIF.



Visit Booth F-38 at A.M.A. Convention

GRASS INSTRUMENT COMPANY
QUINCY, MASS.
Latest Model
ELECTROENCEPHALOGRAPHS
AND ACCESSORY DEVICES
will be shown at
BOOTH N-49

DR. SURGENT'S X-I-LYTE Trouble Finder

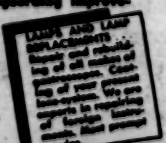


Doctors, Dentists Industrial Work + 10 Diopter Lens Light & Lens Together

Pat. 1906001 A DAY OF SUN IN THE DARK
Dept's Eye Lens Examiner **LIGHT** with Magnification
No Heat. No Shock. Price $5.00. Safety Guaranteed. Universal Products Corp., Barrington, Penna.

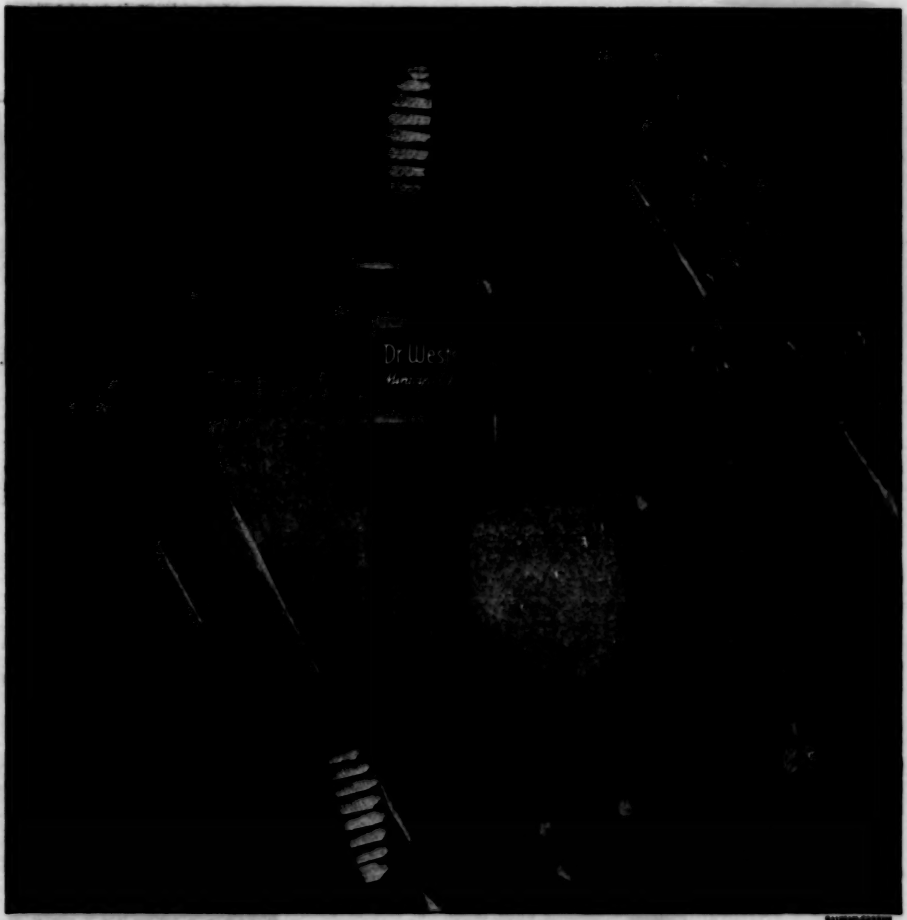
AVAILABLE FOR IMMEDIATE DELIVERY

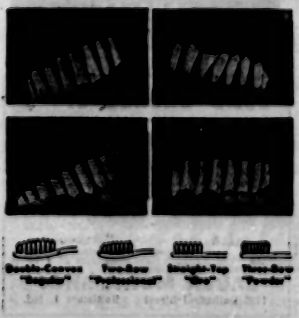
- Featuring the Micro-coated Lens-system, which eliminates glare and increases light and brilliance approx. 30-35%
- Fingertip control
- Greater flexibility
- Larger illuminated visual field
- More safeguarding improvements



COMPLETE INFORMATION AVAILABLE IN BROCHURE 1A

LAMPS AND LAMP REPLACEMENTS: Master and rebuild lamps of all makes of examiners. Complete line of your favorite lens-systems. Prompt service in repairing all Burton units or Burton lamps. Send for catalog. Rush prompt quotes.





NEW FACTS ON MIRACLE-TUFT

50¢

Glass protects each Dr. West's—

It's sterilized and sealed within the tube!

See that plastic cap on the base of the Dr. West's tube. It seals each Miracle-Tuft inside its glass package along with a single drop of antibacterial fluid. This vaporizes, assuring a sterile atmosphere from the moment the brush is packaged. Dr. West's also offers exclusive "Exton" brand bristling for extra cleansing power, far longer-lasting efficiency. Its two-way curved brushhead is scientifically shaped to reach every tooth. Available in the four designs shown at the left. Each 50¢.

Copr. 1930 by Ward Products Company

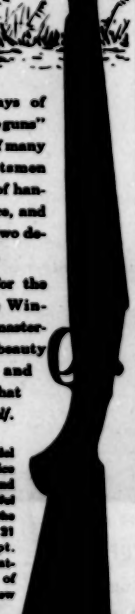
World's Finest Shotgun . . .

THE WINCHESTER MODEL 21 DOUBLE GUN

Since the earliest days of wingshooting, "double guns" have been the choice of many discriminating sportsmen because of their ease of handling, trim appearance, and ready availability of two degrees of barrel choke.

If you are looking for the perfect double, the Winchester Model 21 is a masterpiece . . . a gun of such beauty of line, sturdiness, and shooting excellence that *it is in a class by itself.*

See the Winchester Model 21 at your dealer's. Choice of styles in field, trap and skeet grades. For a beautiful color brochure describing the complete line of Model 21 shotguns, write to Dept. 371-B, Winchester Repeating Arms Co., Division of Olin Industries, Inc., New Haven 4, Conn.



Illustrated is a Deluxe Grade Model 21 with special engraving.

WINCHESTER
TRADE-MARK
DIVISION OF OLIN INDUSTRIES, INC.
New Haven 4 Connecticut

(Continued from page 122)

MEDICAL TECHNOLOGIST—TAKE CHARGE LABORatory; small, improved, modern (hospital); pleasant, progressive mid-western community 10,000; adjacent state capital; starting salary $350; includes maintenance. T1969; Woodward Medical Bureau, 185 North Wabash, Chicago. L

MEDICAL TECHNOLOGIST — WELL QUALIFIED; large, expanding modern general hospital; Long Island resort location; 40 hour week; 2 weeks vacation; salary $3700; maintenance. T1981; Woodward Medical Bureau, 185 North Wabash, Chicago. L

REGISTERED TECHNICIAN — LARGE, MODERN (hospital); approved technicians school; mid-western community 45,000; exceptionally well staffed, modern laboratory; liberal personnel policies; salary to $4000. T1941; Woodward Medical Bureau, 185 North Wabash, Chicago. L

WANTED — X-RAY TECHNICIAN AND TEACHER; (northern hospital); improved, complete; approved school; plan being developed for completed collegiate curriculum in nearby metropolitan city. Rank 500, Thursday program. Medical Bureau, Palmolive Building, Chicago. L

TISSUE TECHNICIAN—PREPARE SURGICAL AND autopsy tissues, chief office; supervise technicians; multi-hospitals affiliated with western university with medical school; excellent opportunity. T1982; Woodward Medical Bureau, 185 North Wabash, Chicago. L

X-RAY TECHNICIAN—SMALL, MODERN GENERAL hospital opening early Fall, 1955; qualified staff radiologist; picturesque, healthful Northwest Wisconsin area; 40 hour week. T2325; Woodward Medical Bureau, 185 North Wabash, Chicago. L

X-RAY TECHNICIAN — MULTI-DOCTOR OFFICE; progressive working conditions; condition salaried to retired man; preferably located Pacific Coast state; congenial community 9000; good opportunity. T2340; Woodward Medical Bureau, 185 North Wabash, Chicago. L

BACTERIOLOGIST, CHEMISTS, LABORATORY technicians, X-ray technicians, physical therapists, occupational therapists, etc., are needed in all parts of the nation including countries outside Continental United States. Surveys Lorum, Medical Bureau, Palmolive Building, Chicago. L

HOSPITALS AND SANATORIA FOR SALE

FOR SALE—SMALL GENERAL HOSPITAL; SOUTHern Minnesota; completely equipped; building constructed in 1943; medical clinic in connection; fine opportunity for 1 or 2 men; reasonable terms. Box 9073 O, % AMA.

BEAUTIFUL, BUFF BRICK MODERN COMPLETELY equipped 14 bed hospital; located in largest oil producing county in state; good farming district; (hospital) located in southwestern Oklahoma; lease or sale terms if desired. Box 9519 O, % AMA.

THIRTY BED, FOUR BASSINET, GENERAL HOSPITal—Fully equipped in every way; building in good condition; price $35,000; terms; adjoining rectory available; room, specializing. Address: E. Rust Dossler, MD, Colorado Hospital, Canon City, Colorado. O

PRACTICES FOR SALE

CALIFORNIA—HOLLYWOOD; ONCE IN A LIFETIME opportunity to purchase very large general practice; surgery, OB and gynecology; established 35 years; transferring to hospital practice; advantageous lease; 4 years remaining; fully equipped; gets $40,000-$45,000 yearly; retiring. Box 9031 P, % AMA.

SAN FRANCISCO, CALIFORNIA—RENT PRACTICE; well established; completely equipped office in finest downtown medical building; reasonable terms. Box 9541 P, % AMA.

CALIFORNIA—LOS ANGELES COUNTY; RETIRING RENT specialist desires to sell practice for value of equipment; no depreciation; will introduce; modern instruments; large library. Box 9379 P, % AMA.

FLORIDA WEST COAST—ACTIVE GENERAL PRACtice; ideal for right man interested in permanent country practice; in fast growing agricultural area in south Florida; must have Florida License. Box 9484 P, % AMA.

CENTRAL ILLINOIS—GENERAL PRACTICE; RICH rural; unopposed; 3 excellent open hospitals 12 miles; long established office; fully equipped; clear title; will introduce; available May 1st; leaving; specializing; second offer. Box 9230 P, % AMA.

ILLINOIS—CHICAGO; ANNUAL GROSS COLlections about $30,000 for each of past 3 years; established; ethical; short term, general practice; large OB and general surgery; to interest in clinic-hospital and surgery with specialty; lease; terms; cash on the spot; possible rental $1500; will proceed with initial consultation; price, approximately ½ annual gross; substantial balance to be paid out of future collections; physician's estate considered; if practice not bought, physician's estate considered in installment. Box 9041 P, % AMA.

ILLINOIS—ESTABLISHED RENT PRACTICE; DOWNtown Chicago and south suburb. Box 9531 P, % AMA.

INDIANA — $24,000 CASH GENERAL PRACTICE; small town adjoining large city; in agricultural, manufacturing and labor area of Indiana; all the advantages of the small town and the privileges of the large city; 15 minutes to several open staff city hospitals; low office and hourly rent; equipment cost (x-ray, office including X-ray, basal metabolism, 2 disturbeds, drugs and records) $1500; part cash; unusual opportunity; specializing. Box 9232 P, % AMA.

CENTRAL INDIANA—GROSSING $10,000 PER YEAR; prosperous county seat town with hospital; fine location in professional building; will introduce; liberal terms; specializing. Box 9414 P, % AMA.

IOWA—RENT; VERY ACTIVE UNOPPOSED PRACtice; city 15,000; trading center 60,000-70,000; prosperous community; good churches, schools; well constructed hospital; part retiring age; low overhead. Box 9376 P, % AMA.

(Continued on page 126)

HELLIGE IMPROVED WESTERGREN
BLOOD SEDIMENTATION APPARATUS

PHYSICIAN'S MODEL FOR 3 TUBES
Complete $10.00

The spring blades for holding the sedimentation tubes are made in one piece; there are no metal parts that may become loose or worn. The rubber pads shield, protecting against the tubes can easily be kept clean. They replace the customary spring mechanism, and the difficulties connected with the latter's proper operation because of pitted flanks, and resulting deficiencies are thus completely eliminated.

Other models are available for 6 and 10 tubes.

WRITE FOR BULLETIN No. 1002-AM

HELLIGE
INCORPORATED
3910 NORTHERN BLVD., LONG ISLAND CITY 1, N.Y.

PLEASE DO NOT ASK for the names of classified advertisers in the JOURNAL who use box numbers. We are bound by agreement with these advertisers not to give out this information. Address your replies or inquiries to the box number given, % A. M. A., and we will forward them.

V-C-B
(VITAMIN C BEVERAGE BASE)
A Special Purpose Food that Helps Supply Vitamin C Needs for All Conditions

"V-C-B contains approximately 250 mgms vitamin C and contains about an 8-ounce orange juice."

HILKER & BLETSCH COMPANY

SOLID BRONZE SIGNS
Cast solid bronze signs, drilled with screws

5" x 12"—$7.50, 5" x 14"—$8.00, 5" x 16"—$8.50.
Add 60 for each additional line on above.
7" x 14"—$10.00, 7" x 16"—$11.00, 7" x 18"—$11.50
7" x 20"—$12.00, 7" x 22"—$12.50, 7" x 24"—$13.00

CHECK MUST ACCOMPANY ORDER
Ask for prices of other sizes.
Also "Waiting Room" and other signs 5" x 12" or 7" x 18".

LAUER METAL SHOP
1103 Cathedral Street Baltimore 1, Md.

NOW ONLY $299.95 AIR CONDITIONS YOUR OFFICE

with a new Fedders Room Air Conditioner

DON'T swelter through another hot, sticky summer. Install a Fedders Room Air Conditioner in your office and waiting rooms now. Each unit is a complete, compact system of electrically refrigerated air conditioning. Works the same way and gives the same results as the large systems used in theaters and restaurants—yet costs only a fraction as much.

REMOVES EXCESS MOISTURE

Your Fedders' unit not only cools but it dehumidifies hot, muggy air . . . filters out dirt, dust, soot and unpleasant odors . . . lets you keep the windows closed, sealing out irritating street noises. Summer office hours will be a pleasure for you and your patients too—even on hottest days. In addition to keeping the room comfortably cool, Fedders gives relief to patients suffering from air-borne allergies.

INSTALLATION IS SIMPLE AND FAST

The unit fits into the window, plugs in like a radio. Act now for your own summer comfort. Mail the coupon and we'll send you a beautifully illustrated 16-page booklet that shows how other doctors keep comfortable in summer heat with a Fedders Room Air Conditioner.

MAIL THIS COUPON NOW

Fedders-Quigan Corp., Dept. J-3, Buffalo 7, N. Y.
Please send me your interesting 16-page illustrated booklet on Fedders Room Air Conditioners plus full specifications and installation data.

Name .....

Address .....

City ..... State .....

fedders

A GREAT NAME SINCE 1896

(Continued from page 124)

IOWA—GENERAL PRACTICE, OFFICE BUILDING; oil heated living quarters; town 1300; X-ray, diathermy, lights, drugs; $12,000 cash 1949; want quit; all for $10,000; part cash; terms. Box 9453 P, % AMA.

SOUTH CENTRAL KANSAS—TOWN OF 3200; GENeral practice netting over $25,000 year; equipment modern; will sell to right man for reasonable payment and balance monthly. P. G. Miller, M.D. Anthony, Kansas. P

KENTUCKY — METROPOLITAN AREA; GENERAL practice; home-office combination; available immediately; office equipped; will introduce; plenty of room for man with a family; full particulars by letter. Box 9417 P, % AMA.

BALTIMORE, MARYLAND—ACTIVE GENERAL practice; well established; complete files; combination office and residence; well populated urban area; excellent opportunity; terms; good reason for retiring. Box 9511 P, % AMA.

DETROIT, MICHIGAN — NORTHWEST; UNUSUAL opportunity for qualified man; exclusive residential section; internal medicine, allergy; lease reasonable; close to large hospitals; leaving state; terms. Box 9196 P, % AMA.

MICHIGAN—LUCRATIVE, UNOPPOSED, GENERAL practice; town 1300 on large lake; home office combination; main US highway; may be bought land contract. Box 9485 P, % AMA.

NORTHEAST MISSOURI—GENERAL PRACTICE, IN most favorable rural yet suburban community; well equipped, spacious office; well established; you will gross $16,000-$20,000 the 1st year; price, $8000; your terms. Box 9415 P, % AMA.

NEW JERSEY—FINE MODERN COMBINED HOME and office; especially built for physician 9 years ago; plus well established $20,000 general practice; splendid property in residential zone; short walk from business center; beautiful residential suburb 18 miles from New York City; property approved FHA for $20,000 loan; owner moving to California. Box 9806 P, % AMA.

ELIZABETH, NEW JERSEY AREA—LARGE GENeral and surgical practice; 25 years; luxurious brick colonial home and office; X-ray, etc; leaving state. Dr. D., 129 E. Grant Avenue, Roselle Park, New Jersey. P

NEW JERSEY—PROSPEROUS GENERAL PRACTICE; 6 miles from Philadelphia, Pennsylvania; including large single home and 5 room office and furniture; specializing; leaving state. J. B. Reilly, MD, 600 Newton Ave., Oaklyn, New Jersey. P

SOUTHERN NEW JERSEY—GENERAL PRACTICE, seashore resort; lucrative summer practice; combined beautiful home and equipped office; rental from garage apartment; very reasonable; specializing in Army. Box 9437 P, % AMA.

NEW YORK — GENERAL PRACTICE; WONDERFUL opportunity; modern 8 room residence-office; on main thoroughfare; progressive suburban community; specializing. H. Frederick Keiber, MD, 793 Jewett Ave., Staten Island, New York. P

NEW YORK, NEW YORK—PRACTICE AND OFFICE, 5 rooms; medical equipment; monthly rent $30; congested Italian section downtown Manhattan; any reasonable price accepted because departure. 248 Mott Street, New York, New York. Telephone CAnal 6-4844. Home phone ACademy 2-7692. P

WESTERN NORTH CAROLINA—GENERAL PRACtice; grossing over $30,000; completely equipped including X-ray, fluoroscope, BMR, EKG, diathermy; open staff hospital; resort climate; community stable industries; will introduce; specializing. Box 9512 P, % AMA.

N. W. OHIO—PRACTICE FOR SALE OR RENT; yearly gross $20,000; combined home-office; small deposit; monthly rental $200; reason, health. Box 9577 P, % AMA.

OHIO — GROWING TOWN OF 40,000; GENERAL practice grossing over $10,000 with equipment, supplies; immediately available for $1000; will introduce; specializing. Box 9557 P, % AMA.

OHIO—GENERAL PRACTICE; HOME AND OFFICE combination; small town; good industry, agriculture and lake resort area; part-time industrial work available; last year gross $15,000; $2000 down payment will finance. Box 9510 P, % AMA.

NORTHEASTERN OHIO—NEW 30 ROOM MEDICAL building and general, industrial and surgical practice; city of 20,000; opportunity for 4 man group; 10 rooms fully equipped including 100 M A X-ray, short wave diathermy, EKG, BMR, anesthesia machine. Owner's gross $50,000 annually; next door to new 150 bed hospital, open staff; will introduce; $75,000; 25% cash. Box 9527 P, % AMA.

OHIO—LUCRATIVE RURAL PRACTICE; UNOPposed; includes equipment, office furniture and supplies; housing available; hospitals nearby; terminus of Pennsylvania turnpike extension; very reasonable; beginning residency July. L. Barnes, MD, Petersburg, Ohio. P

SOUTHERN WEST VIRGINIA—RECEIVED ARMY call; grossed $20,000 last year; growing community in coal fields; equipment, including X-ray; private practice, contracts available; home optional. Box 9516 P, % AMA.

APPARATUS ETC. FOR SALE

RITTER ELECTRIC TABLE—NEARLY NEW, $800; McKesson basal metabolism, perfect, $170; Hanovia ultra violet lamp, late model, $175; Bausch and Lomb keratometer, $100; Gullstrand ophthalmoscope, bi-ocular, $250; Cameron BENT diagnostic set, $50. Harry Wells, 420 East 86th St., New York 22, New York. Q

FOR SALE — COMPLETE RUDDOCK PERITONEOscope set, McCarthy foroblique visual system; manufactured by American Cystoscope Makers, Inc; perfect condition; used 3 times; cost $390; selling price $250. Box 9672 Q, % AMA.

EXAMINATION TABLE PAPER—TWO 18" ROLLS $5; 21" $6 delivered; add 50c west of Mississippi River. Blanden, Woodbury, Connecticut. Q

(Continued on page 128)

THE HEART OF GOOD BOILING STERILIZATION

This Castle instrument sterilizer is the heart of any good water sterilization. It is designed to make your sterilizing easier and safer.

"Full-Automatic" control protects technique and instruments; pilot light replaceable from front. The lifetime cast-bronze boiler is sloped for easy draining, and the interior is tin coated to prevent spotting. Available in 13", 16" and 17" sizes.

For Those Who Prefer Manual Control. The Castle "436" portable instrument sterilizer is furnished with the 3-heat switch instead of double "full-automatic" control. This unit gives you safe sterilization at the lowest price possible.

CASTLE QUICK ACTION SYRINGE STERILIZER

The Castle "407" is the quickest boiling sterilizer available. Its special make heater brings water to boil in 3-5 minutes.

See your Castle dealer or write:

WILMOT CASTLE CO.

1155 University Ave., Rochester 7, N.Y.

Castle LIGHTS AND STERILIZERS

FILE CASES for JOURNAL A.M.A. and SPECIAL JOURNALS

An economical substitute for a permanent binding. Easy to handle, with each copy separate for convenient reference. Labels for cases with imprinted titles of periodicals, furnished on order.

FOR THE JOURNAL A.M.A. dated prior to 1942, one set (or 2 cases) accommodates one volume, or 26 issues. Price, $1.25. Two sets (of 4 cases) hold issues of a year. Price, $2.50. For 1942 and thereafter, three cases will file a year's copies. Price, $2.50. State year for which set is wanted.

FOR A.M.A. SPECIAL JOURNALS, each case accommodates one volume (or 6 issues). Two cases (or 1 set) hold copies for a complete year. Cases for the special journals are sold only in sets of two. Price, $1.25 per set.

(These cases are not suitable for foreign mailing. Available in Europe from the Grande Librairie de la Faculté, rue Berchmans, Bruxelles, Belgique.)

Send order and remittance to

AMERICAN MEDICAL ASSN. 535 N. Dearborn St., Chicago 10

Books Received

Books received by THE JOURNAL are acknowledged in this column. Selections will be made for more extensive review in the interests of THE JOURNAL readers as space permits. Books listed in this department are not available for lending. Information concerning them will be supplied on request.

THE DIABETIC'S HANDBOOK: HOW TO WORK WITH YOUR DOCTOR; TREATMENT BY DIET AND INSULIN. By Anthony M. Sindoni, Jr., M.D., Chief of the Department of Metabolism, Philadelphia General Hospital. Introduction by Rufus S. Reeves, B.S., M.D., Director of the Department of Public Health, Philadelphia. With a Foreword by Charles C. Wolferth, A.B., M.D., Professor of Medicine, School of Medicine, University of Pennsylvania, Philadelphia. Cloth. $3. Pp. 194, with 7 illustrations. The Ronald Press Company, 15 E. 26th St., New York 10, 1948.

THE NATIONAL HEALTH SERVICE OF GREAT BRITAIN. By Willard C. Rappleye, M.D., Dean and Professor of Medical Economics, Faculty of Medicine, Columbia University, New York. Supplement of the Journal of the Association of American Medical Colleges. Paper. Pp. 32. Josiah Macy, Jr., Foundation, 565 Park Ave., New York 21, [n.d.].

PRINCIPLES AND PRACTICE OF THERAPEUTIC EXERCISES. By Hans Kraus, M.D., Assistant Clinical Professor of Rehabilitation and Physical Medicine, New York University College of Medicine, New York. Cloth. $6.50. Pp. 309, with 94 illustrations by Richard Kroth. Charles C Thomas, Publisher, 301-327 E. Lawrence Ave., Springfield, Ill., 1949.

THE OFFICIAL PREPARATIONS OF PHARMACY. By Charles Oren Lee, Ph.D., Professor of Pharmacy, Purdue University School of Pharmacy, Lafayette, Indiana. Cloth. $5.50. Pp. 528, with 32 illustrations. The C. V. Mosby Company, 3207 Washington Boulevard, St. Louis 3, 1949.

DIE THERAPIE DER ÜBERTRAGBAREN KINDERLÄHMUNG. Von Prof. Dr. Kurt Hofmeier. Paper. 7.50 marks. Pp. 112, with 7 illustrations. Georg Thieme Verlag, Diemershaldenstrasse 47; Stuttgart O; Agents for U. S. A.: Grune & Stratton, Inc., 381 4th Ave., New York 16, 1949.

PROBLEMS OF BISEXUALITY AS REFLECTED IN CIRCUMCISION. By Herman Nunberg. [Originally printed in the International Journal of Psycho-Analysis, 1947.] Cloth. 10s. Pp. 83. Imago Publishing Co. Ltd., 10 Nottingham Place, London, W. 1, 1949.

THE LIFE AND WORKS OF EDGAR ALLAN POE: A PSYCHO-ANALYTIC INTERPRETATION. By Marie Bonaparte. Foreword by Sigmund Freud. Translated by John Rodker. Cloth. 35s. Pp. 749. Imago Publishing Co. Ltd., 10 Nottingham Place, London, W. 1, 1949.

MEDICINE COULD BE VERSE: HUMOROUS POEMS MAINLY ABOUT THE PROFESSION. By Charles G. Farnum, M.D. With an Introduction by Strickland Gillilan. Cloth. $3. Pp. 127. Exposition Press, 251 Fourth Ave., New York 10, 1949.

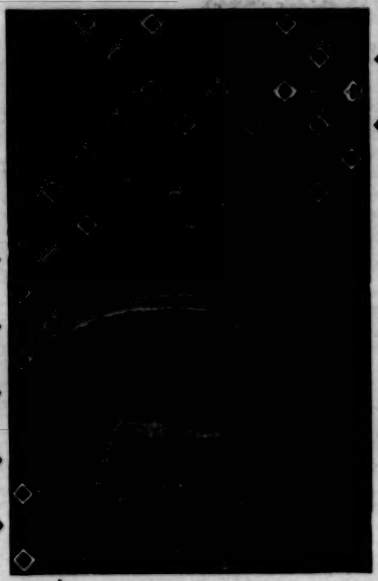
SEXUAL FREEDOM. By René Guyon. Translated from the French by Eden and Cedar Paul. With an Introduction by Norman Haire, Ch.M., M.B. Cloth. $4.50. Pp. 344. Alfred A. Knopf, 501 Madison Ave., New York 22, 1950.

MANUAL OF PHARMACEUTICAL LAW. By William Pettit, Lecturer in Pharmaceutical Jurisprudence, University of Pittsburgh. Cloth. $2.75. Pp. 170, with 1 illustration. The Macmillan Company, 60 5th Ave., New York 11, 1949.

McGRAW-HILL BOOK COMPANY, 1909-1949: THE STORY OF FORTY YEARS OF GROWTH. Paper. Pp. 65, with illustrations. The Company, 330 W. 42d St., New York 18; Aldwych House, Aldwych, London, W. C. 2, [n.d.].

YALE MEDICAL LIBRARY: FIRST ANNUAL REPORT INCLUDING THE NINTH ANNUAL REPORT OF THE HISTORICAL LIBRARY, 30 JUNE 1949. Paper. Pp. 43. Historical Library, 333 Cedar St., New Haven 11, [n.d.].

ONE HALF THE PEOPLE: DOCTORS AND THE CRISIS OF WORLD HEALTH. By Charles Morrow Wilson. Cloth. $4. Pp. 315. William Sloane Associates, Inc., 119 W. 57th St., New York 19, 1949.



SURFACE TENSION

The carefully adjusted, low surface tension of Koromex Jelly and Cream, assures even spreading over the entire vaginal mucosa. This results in greater penetration, increased barrier action and faster spermicidal time

ACTIVE INGREDIENTS: BORIC ACID 3.0% OXYQUINOLIN BENZOATE 0.02% AND PHENYLMERCURIC ACETATE 0.02% IN SUITABLE JELLY OR CREAM BASES

KOROMEX

A CHOICE OF PHYSICIANS

HOLLAND-RANTOS COMPANY, INC. • 148 HUDSON STREET, NEW YORK 13, N. Y.

MERLE I. YOUNGS
PRESIDENT

THE TECHNICAL EXPOSITION

(Continued from page 300)

RAYTHEON MFG. COMPANY
Booth I-22

The Microtherm, Raytheon's up-to-the-minute microwave diathermy, is the dominant feature in booth I-22. Completely post-war, the Microtherm offers an efficient, convenient, and safe form of deep-heat therapy. Significant features are: high absorption, penetrating energy for deep heating, effective production of active hyperemia—all accomplished with ultra convenience,—director-loomed application. A Raytheon representative will be pleased to greet you.

REED & CARRNICK
Booth A-15

Ninety years of service to the medical profession is commemorated by Reed and Carrnick's exhibit. Representative of their pioneer research in medicine are Council-accepted Mepraze dipropionate and Estrogenic Substances, B & C. Stop by and become further acquainted.

REVLON PRODUCTS CORP.
Booths LL-30, 32

Revlon, makers of cosmetics used the world over, have in the past ten years sold over one billion applications of nail enamel to the American woman. It is used in over ninety-five per cent of the manicures given in beauty salons in the United States, and has been accepted by the Committee on Cosmetics of the American Medical Association. Revlon Products Corporation invite all doctors to stop by their booth and register where they will receive for their wives a gift with the compliments of the company.

REXALL DRUG CO.
Booth A-32

The Petechiometer, a clinical instrument for the determination of increased capillary fragility (increased permeability) by the application of suction over the biceps for one minute, will interest you here. It can evaluate the efficacy of therapeutic measures employing vitamin K or Ascorbic Acid when administered in the treatment of *petechial hemorrhage*, frequently associated with nutritional deficiencies. Dicumarol therapy, or found as a syndrome complicating many illnesses.

RITTER COMPANY, INC.
Booth I-10

The new Ritter Motor Elevated Multi-Purpose Table is being shown for the first time by Ritter Company. Its explosion proof motor, non-conductive rubber slipcovers give it added safety for use with highly inflammable anesthetics. Other items of interest are special unit and chair equipment for the ENT specialist; house surgery engines; hydromatic sterilizers; stools, and automatic air compressors.

SAFETY GAS MACHINE CO., INC.
Booth H-7

Of great interest to surgeons and anesthetists is the exhibit of Safety Gas Machine Co., featuring their latest Council-accepted Augustus Model Gas Machines. These embody a number of new and exclusive features. An experienced anesthetist at the booth will be happy to discuss your anesthetic problems with you.

SANBORN COMPANY
Booths H-18, 19

SANDOZ CHEMICAL WORKS, INC.
Booth H-22

For the non-narcotic relief of migraine physicians will be interested in Gynergen (Ergotamine tartrate). Featured also are Diglandol, a combination of the pure crystalline Lanatosides A, B & C; Scillaren and Scillaren B, containing the cardiodiuretic principles of squill—all of these cardioactive glycosides are standardized gravimetrically; Calcibronat, original brand of calcium gluconate for palatable oral calcium therapy; and Sandoptal, an effective hypnotic and sedative.

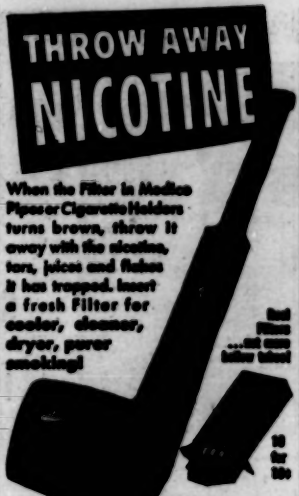
W. B. SAUNDERS CO.
Booths H-8, 10

Saunders display a complete line of their unusual books including Hyman's *Integrated Practice of Medicine*; Beckus'

(Continued on page 138)

THROW AWAY NICOTINE

When the Filter in Medico Pipes or Cigarette Holders turns brown, throw it away with the nicotine, tars, juices and flakes it has trapped. Insert a fresh Filter for cooler, cleaner, dryer, purer smoking!



Real FILTERS ...not mere rubber tubes!

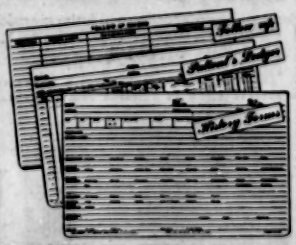
10 for 10¢

MEDICO V. P. G. (VERY FINE QUALITY)
Pipes of specially selected imported briar. $2
Wide variety of shapes. With 10 filters...
Also Frank Medico "Standard"...
America's Outstanding Dollar ($1) Pipe
Frank Medico Cigarette Holders ½ & ½

MEDICO
FILTERED SMOKING

Write to S. M. Frank & Co., New York 22, for booklet J

HISTORY FORMS
for Your Private Practice



AN EXCELLENT SERIES of History forms for general practice and for each of the American Board specialties. Also includes forms for Follow-up, Progress and a Patient's Ledger sheet. The History Forms are arranged for checking off, minimizing writing—and still provide sufficient space for recording essential or abnormal findings. The forms are 5 x 8 when folded, and fit any 5 x 8 filing devices or card cabinet.

Ask for samples and circular J-1520 which describes complete system

PHYSICIANS' RECORD CO.
[*The Largest Publishers of Medical and Hospital Records*]
161 W. Harrison Street Chicago, Illinois

(Continued from page 126)

SPENCER MICROSCOPE—LIKE NEW. FOR MEDical student, $125; Bausch Zoomatic, cyclomatic, class 10-21-24; $110 Cenco-monobore $175; 1 gem electric centrifuge, $67.50. Reed-Lee and Cambridge, $50. Chas. Gallay Surgical Supply, 175 2nd Ave., New York 3. New York. C

X-RAY APPARATUS — 150 MA. KELLEY-KOETT table with rad tube-stand, three cassette-changer, fluoroscope, easy to use central film, $600; Picker portable X-ray 30 KV, nearly unused, complete set of accessories, bucky, bench, portable Bucky, $600; fluoroscopic cassette holder available at nominal price. Box 9252 C. % AMA.

UNUSUAL OPPORTUNITY—NEW YORK CITY: Central location, Manhattan 250 KV Buzz 100-100 mah; excellent condition. Telephone 2-1552, 2-4 PM or write: Beutel, 225 West 86th Street, New York. New York. C

LARGE STOCK OF NEW AND USED EQUIPment and instruments; should be used by all physicians; send for catalog. Harry Weiss, 104 East 25th St., New York. New York. C

GOVERNMENT SURPLUS—SURGICAL INSTRUments, bandages, hospital supplies new; in quantity; at ½ below regular costs; stock available at Chicago, Ill. Write Surplus Sales Branch, Room 1100, 920 S. Michigan Ave., Chicago, Ill. Ill. C

WANTED TO BUY — INDEX MEDICUS DATING back to 1920 or later. Contact: Librarian, Saint John's Hospital, Santa Monica, California. J

FOR RENT

FOR LEASE—WIDOW WISHES TO LEASE THREE room equipped office; in Ohio River town of 9000 plus general practice; opportunity to enlarge practice; gross income in 1935 was $15,000; complete records at disposal of renter; ample immediate selling room and other room. Box E. Valley, Wellsville, Ohio. C

OFFICE, EQUIPMENT, PRACTICE—RENT, LEASE, sale or partnership basis with an established woman; entry to right circle with good references; will introduce; limited capital required; rare opportunity; northern California. Box 9260 C. % AMA.

DOCTORS' OFFICES—THREE ROOM SUITE; IN recently built brick dwelling; new apartment with 3 rooms and bath on 2nd floor; all heat throughout; in town of 2500 miles from Williamsport, Pennsylvania. Box 9251 C. % AMA.

LONG ISLAND, NEW YORK—OFFICE FOR RENT; furniture and equipment included; will introduce right person to my local general practice; specializing in Asthma. Box 9240 C. % AMA.

WELL EQUIPPED (X-RAY, BMR, DIATHERMY) furnished office, apartment and practice; is available for physician; owner leaving town. Address: Dr. Apone, L. E., M.D. 1000 Madison Boulevard, Union City, New Jersey. Telephone: Union 8-2200. C

FOR RENT—EXCELLENT OFFICE LOCATION; IN central Ohio city; 35K population; practice of physician now leaving city is leaving to specialize; will introduce. Box 9517 C. % AMA.

AMBULANT PROCTOLOGIST'S LOCATION—ESTABlished 10 years; in Penn' largest city. Box 9207 C. % AMA.

EQUIPPED FOUR ROOM OFFICES—IN LARGE corner residence; physician recently deceased; growing community; rent reasonable. Apply Mrs. Ella Hall, Wilmington hospitals. A. D. Pierce, Agent, Kennett Square, Pennsylvania.

ONE HOUR TO TIMES SQUARE—COMPLETE EQUIPped furnished modern office suite; desirable community; favorable general practice 11 years; leaving to specialize. Agent: Frank Stout, Bloomfield, New Jersey.

DAYTON, OHIO—AVAILABLE, 2 LARGE FRONT rooms on 1st floor; in quality section; rent $8.50 weekly; previously occupied by physician; desire to rent. Box 9150 C. % AMA.

REAL ESTATE FOR SALE

CLINIC BUILDING—SIX ROOMS; LIVING QUARTERS above; small cottage rear of building; 2 car garage; equipment available; immediate possession; west side, Joliet, Illinois. Contact: Ben C. Major, Manon, Illinois. J

LOS ANGELES—MEDICAL BUILDING AND GENeral practice; established 15 years; $7500 yearly rental income; parking lot; price $47,500; 50% down; owner retiring; will also lease. 1079 South La Brea, Los Angeles, California. C

WALLA WALLA, WASHINGTON—THREE ROOM OFfice; air condition; comfortable home; central corner location. For further information contact: Dr. Miller H. Robinson, Dreumbeller Building, Walla Walla, Washington.

RADIUM

RADIUM—FOR ALL MEDICAL PURPOSES; BOUGHT, sold; radium applicators; owned-directed by physician-radiologist. Quincy X-Ray—Radium Laboratories, Quincy, Illinois.

ELECTROLYSIS

SUPERFLUOUS HAIR REMOVED PERMANENTLY—specializing in difficult cases; no case too small, no case too far advanced; professional recommendations by approximately one hundred physicians; Lenore Lenox, 1501 Post Avenue, New York 34, New York. Est. 1907. C

Not For One Reason

But For Many !

Par-Lano-Sar Heavy Duty

GRANULATED SKIN CLEANSER

PAX

A M A

G. H. PACKWOOD MANUFACTURING CO. - 1545-55 TOWER GROVE AVE. - ST. LOUIS 10, MO.

THE TECHNICAL EXPOSITION

(Continued from page 728)

Postgraduate Gastro-enterology; Cabot's Diagnosis of Cancer; Wells' Clinical Pathology; Wolff's Electrocardiography; Conn's 1950 Current Therapy; Mitchell & Nelson's Pediatrics; Hauser's Diseases of the Foot; Neuropsychiatry; Cantor's Atlas of Blood and Bone Marrow; Sunderman & Boerner's Normal Clinical Values; Friedberg's Diseases of the Heart; Jonney's Medical Gynecology; Levine & Harvey's Clinical Auscultation of the Heart; Curtis-Hoffman's Textbook of Gynecology; Pullen's Medical Diagnosis; Shanks's X-Ray Diagnosis; and many other new books and new editions.

SCHENLEY LABS., INC.

Booth G-30

Titralac, a new antacid preparation is featured at the Schenley Laboratories exhibit. This tablet has a fibrillose core like that of milk, and combines the buffering action of glycine with the neutralizing properties of calcium carbonate. One Titralac tablet provides the acid-neutralizing power of one 5 ounce glass of milk. Conveniently administered, exceptionally palatable, Titralac is useful in hyperacidity and peptic ulcer management.

SCHERING CORPORATION

Booths E-2, 3

At the Schering exhibit preparations of Trimeton—an antihistamine known for its safety and clinical effectiveness in hay fever—are being featured. Also shown are Sulamyd, a widely prescribed antibacterial for genito-urinary tract infections; Solganal, a time-tested gold suspension for rheumatoid arthritis; and Prelone and Meticortelone, radiopaque media. The exhibit is highlighted by Estinyl, Schering's ethinyl estradiol, noted for efficacy and economy in oral estrogenic therapy. Schering medical service physicians and professional service representatives are present to serve you.

SCHIEFFELIN & COMPANY

Booth H-32 (E½)

Schieffelin & Co. present their new diagnostic aid Soto-Plastin, a stable thromboplastin solution, and Dermarsol-Schieffelin, an anti-coagulant. Featured also are their tinctures, Merbasil, a new topical mercurial antiseptic that is bacteriostatic, bactericidal, and fungicidal; and Benarsyl, their non-gitiferous synthetic estrogen offering the advantages of effective estrogenic activity, freedom of side-effects, versatile dosage forms and strengths, and low cost.

JULIUS SCHMID, INC.

Booth D-21

See for the first time at any national convention the New Trab-A-Way Kit. This provides all units required for protection against conception and packs into small space in dresser drawer or travelling bag. Representatives will answer questions regarding "Known" Plastic Cushioned Diaphragm, Diaphragm introducer, Vaginal Jelly, Vaginal Applicator and Fitting Rings. Ortho-Gynecological Products are offered for use only as directed by the physician after he has examined the patient.

SCHOLL MFG. COMPANY, INC.

Booth H-34

Tubergauz, a seamless tubular gauze over-dressing, is the featured item in the line of Durable Seal Adhesives and Bandages shown in this exhibit. Tubergauz with its manifold uses comes in five graduated sizes in 10 yard dispensing cartons as well as 15 yard introductory rolls. The Durable Seal products are headlined by Vesite, a perforated ventilating sensitive, and flexible rubber adhesive dressing strips, moleskin, adhesive foam, and all-cotton elastic bandages.

SEALY, INCORPORATED

Booth H-30

Since the initial introduction of the Sealy Orthopedic Firm-O-Rest mattress to the American public a little over a year ago, its nation-wide acceptance by the medical profession and the public at large has made it the world's largest selling orthopedic mattress, say the manufacturers.

SEARLE RUBBER COMPANY

Booth H-30

One good reason for visiting this exhibit is the opportunity to become better acquainted with the Searlemed Nurser—the nipple that "b-r-e-a-t-h-e-s." Studified works like a tiny bellows—"presses" to air as baby withdraws food until the bottle is empty. Other advantages include: tight fit against bottle and cap; steady air feed to provide free passage of air; adaptability, etc.

WHATEVER Your Professional Need

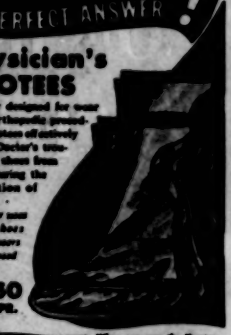
There's a Krestex GARMENT That's the PLASTICALLY PERFECT ANSWER!

Physician's BOOTEES

Specially designed for wear during orthopedic procedures. Booties effectively protect Doctor's trousers and shoes from plaster during the application of casts.

Also other uses where shoes and trousers are exposed to stains.

$3.50 PR.



KRESTEX RUBBER ANIMAL GLOVES

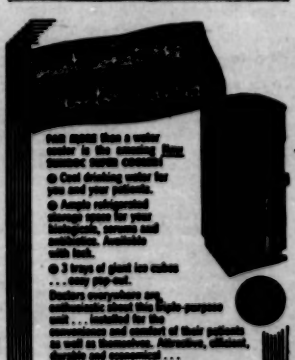
When you see the Doctor ASK for your collection & correct size.

FOR ANY AND ALL OF YOUR PLASTIC CONSTRUCTION OR SUPPORT

• Available at leading Dealers or write us direct.

Petra

MANUFACTURING COMPANY, Dept. A. 1000 NORTH WELLS STREET, CHICAGO 10, ILLINOIS



Still more than a water cooler in the cooling line. SUNROC CENTRI-COOLER

• Cool drinking water for you and your patients.

• Ample refrigerated storage space for your blackgoods, serums and vaccines. Available with both.

• 3 trays of giant ice cubes . . . easy pop-out.

Every purchaser says enthusiastic about this triple-purpose unit . . . installed for the convenience and comfort of their patients as well as themselves. Attractive, efficient, durable and economical . . .

SUNROC Model 28 with Water Purifier provides the perfect answer to your refrigeration and drinking water needs.

Mail the coupon . . . NOW . . . for complete details and price.

SUNROC COMPANY • Glen Riddle, Pa.

Agents, Dealers and Distributors throughout the State

SUNROC COMPANY
Glen Riddle, Pa.

Send me
☐ Water Cooler Literature
☐ Water Purifier Data
☐ Sales-to-Doctor Plan

Name
Title
Company
Address
City Zone State

S. D. SEARLE & CO.

Booths C-2, 4

At the Searle booths, C-3 and C-4, a number of anatomic and pathologic subjects are being exhibited in colored transfers and colored slides. Featured is Dramamine, for the prevention and relief of all types of motion sickness. Other products of Searle Research to attract your attention include Searle Aminophyllin, Mesantoin, Diuchlotride, Isochrostenol, Gold Sodium Thiosulfate, and Xylocaine.

SEVEN-UP COMPANY

Booth LL-19

SHAMPAINE COMPANY

Booths F-39, 40

The Shampaine Company demonstrates and displays a complete assortment of examining room furniture and furniture and equipment. Included are the latest in design in hydraulic equipment, cabinets, examining tables, and related pieces. Also on display are newly designed major operating tables. Factory trained representatives on duty at all times will be most pleased to discuss equipment problems with visitors.

SHARP & DOHME, INC.

Booths D-8, 10

SHEBRANDT, INC.

Booth F-42

THE SIKES COMPANY, INC.

Booth H-47

Waiting room furniture of sturdy and beautiful Early American Butterscotch and two of their famous Executive Posture Office Chairs complete the exhibit of Sikes Company, manufacturers of fine wood furniture for over ninety years. The Waiting Room group includes a settee, divan, tables and chairs—in various styles but substantially constructed to withstand hard usage. The Posture Chairs are available in genuine walnut, upholstered in Asp grain leather over foam rubber mounted on springs—real comfort through proper support.

SILGE & KUHNE

Booth H-33

On exhibit is the new Orthophot Universal Photomicrography equipment with built-in light source of proper color temperature for photomicrography in color, having internally fixed filters, mechanical aperture controls, built-in color filter for black-and-white photography, self-aligning rotten camera with precision built-in focusing device, and built-in photoelectric exposure meter. Various accessories make the basic equipment available for essentially all the photographic and microscopic needs of the laboratory, also for micro-projection and as an illuminator for exacting visual microscopy. Exhibited also are the latest Bausch & Lomb, Spencer, newly imported Leitz, and Zeiss microscopes.

J. SKLAR MFG. COMPANY

Booth F-33

Sklar's exhibit consists not only of staple stainless steel surgical instruments, but includes many new instruments never before demonstrated at a medical convention. A number of these instruments were designed, developed and manufactured in cooperation with leading American surgeons, particularly the new biopsy instruments for early detection of uterine and cervical pathology, and the Johns Hopkins instruments for nasopharyngeal surgery. Sklar's full line of suction and pressure apparatus, long known and recognized for its performance; the ever popular and efficient Pritz automatic drainage and aspirating apparatus; the Davidson pneumothorax apparatus; and Sklar's improved Schlick Tenotractor complete the 20 foot exhibit.

THE SMITH-DORSEY COMPANY

Booth F-35

Testosterone Proportionate, Mercurophyllin, and Duracaine composites are of special interest in this year's Dorsey exhibit. In addition, Theobromine Sodium Acetate, Aminophyllin Suppositories and many other Council-accepted and U.S.P. products are presented for your inspection and discussion.

(Continued on page 732)

Lady out of the Dark

The selective cerebral action of Norodin is useful in dispelling the shadows of mild mental depression. The reported advantages of Norodin over chemically related analeptics include smaller dosages, more prompt and prolonged mental stimulation, and relatively few side effects. Norodin can be used to advantage in achieving the sense of well-being essential to effective patient management in functional and organic disturbances. In obesity, Norodin is useful in reducing the desire for food and counteracting the low spirits associated with the rigors of an enforced diet.

Supplied: 2.5 and 5 mg. tablets in bottles of 100

Norodin®

Hydrochloride

brand of methamphetamine hydrochloride

PSYCHOMOTOR STIMULANT AND ANTI-DEPRESSANT

Endo®

Endo Products, Inc., Richmond Hill 18, N. Y.

THE TECHNICAL EXPOSITION

(Continued from page 130)

question. You are welcome to make the Dorsey booth your headquarters during the meetings.

SMITH, KLINE & FRENCH LABS.
Booth S-4

The S.K.F. exhibit features 'Benzedrine' Sulfate, a fundamental central nervous stimulant and anorexigenic agent; 'Furadantin' Tablets and Ampul Solution, a valuable aid in the treatment of urinary retention due to bladder atony; Ophthalmic Solution 'Paremydride' Iodide, the first cholinergic drug accepted by the Council for use in glaucoma; Aqueous Solution 'Paredrine' Hydrobromide, a non-alimentary aqueous vasoconstrictor, also merit your special attention. Well-informed professional service representatives in attendance will appreciate the opportunity to discuss with you the merits of these outstanding products.

THE SOUNDSCRIBER CORP.
Booth A-24

Tycoon dictating and transcribing equipment is presented by Soundscriber, a pioneer in electronic plastic record dictation. The Tycoon, the dictator's instrument, small and compact in light-weight magnesium cabinet, features the new Quick Review microphone which provides instantaneous review of the last few dictated words. The Lady Tycoon, the secretary's transcribing instrument, features a revolutionary means of translating the dictator's instructions to the secretary—called "television sound"—so soundscribers are adaptable to a wide variety of uses for the physician, such as telephone recording, interview and conference recording, dictation at home, in the automobile, or literally everywhere that electric current is available.

SPECIAL MILK PRODUCTS, INC.
Booth S-4

Highlighting the exhibit of Special Milk Products, Inc., are Meyenberg Evaporated Goat Milk and Hi-Pro (high protein, low fat basic food). The exhibit points up the constant control employed in the manufacture of these worth while preparations and the value of Meyenberg Evaporated Goat Milk when cow's milk lactalbumin allergy is suspected. Samples and literature on both products (and a recipe folder showing the many uses of evaporated goat milk) are offered at the booth.

SPENCER, INC.
Booth F-3

Spencer features a series of photographic illustrations of actual patients before and after application of Spencer Supports. The display of Spencer Individually Designed Supports includes: new support designs for children; a special colostomy support; breast supports including mastectomy supports with breast forms; spinal supports with a new elevating shoulder strap; and the Spencer Abdominal Spring Pad (patented)—of proven clinical value.

SPINDLER & SAUPPE
Booth LL-15

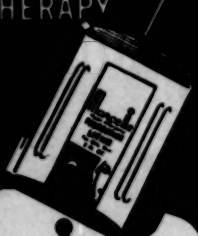
Spindler & Sauppe in booth LL-15 show their well-known electrolide portable, Selectrovalide, for the first time equipped with synchronized sound in Selectrovision cabinet. The tape recorder changes slides automatically (similarly to the way the lecturer would by pushing a button after explaining each slide). The recorder reverses its mechanism automatically, thus providing a continuous operating slide projector with sound especially adapted for scientific exhibits. Another first is the showing of three-dimension pictures in color, automatically projected. The display includes the small "Precision" camera—about the size of a cigaret lighter—particularly useful for close-up and other photography in the medical field. A new slide "filing" service will also be of interest. Plan to see this splendid equipment in operation when you visit the Art Exhibition in the lower level of the Auditorium.

THE SPIRELLA CO., INC.
Booth C-30

Spirella Foundation Garments exhibited here will interest both physicians and their wives. Particularly, because these garments give a remarkable degree of support without the use of straps, buckles and inner belts, the garments also look attractive and are light and comfortable to wear. They are made only to individual requirements of course. The Spirella story is convincingly told by means of Balopticon slides.

COSMETIC SATISFACTION IN

ACNE THERAPY



Marcelle

FOUNDATION LOTION FOR OILY SKIN
in 3 skin-blending shades

Astringent • Protective • Hypo-Allergenic

A "dual purpose" foundation lotion for day-time use, with cosmetic appeal and clinical efficacy. Entirely free from oils, fats or waxes. MARCELLE provides a superior vehicle for the treatment of acne . . . without sacrificing esthetic appeal. On your prescriptions you can specify resorcinol and sulfur, with Marcelle Foundation Lotion for Oily Skin as the stable, grease-free base. 2 oz. bottles in light, medium and dark skin-tints.

MARCELLE COSMETICS, INC.
1741 S. Western Ave., Chicago 47, Ill.

Write for Professional Sample.

WAITING PATIENTS LIKE TO READ TODAY'S HEALTH ($2.00 yearly)
American Medical Assn., 535 N. Dearborn St., Chicago 10

APPALACHIAN HALL
ASHEVILLE NORTH CAROLINA

An institution for rest, recreation, the diagnosis and treatment of [illegible] and convalescent [illegible]

Appalachian Hall is located in Asheville, N. C., Asheville health climate at an elevation of 2,250 feet, and outdoor sports throughout the year. Private beautiful golf courses are available to patients. Ample facilities for examination of patients. Private chefs at no extra charge. Address inquiries to

Appalachian Hall, Asheville, N. C.

WM. RAY GRIFFIN, M.D. H. A. GRIFFIN, M.D.

E. R. SQUIBB & SONS
Booths F-8, 10

STANDARD X-RAY CO.
Booth H-22

A completely new line of modern x-ray units designed especially for office installation may be viewed in booth N-22. Special attention has been given to space required for installation as well as capacity, shockproofing features, and price. Attendants will be most pleased to demonstrate the new Standex whether you are an immediate prospect or not. Be sure to see the Standex units and learn more about their outstanding features.

STATE JOURNAL ADV. BUREAU
Booth I-9

The State Journal Group is comprised of 31 state medical publications which follow the A. M. A. high standards in acceptance of advertising. Copies of the journals which represent 42 state medical associations are on display. Prospective advertisers are invited to secure sample copies, rates, and other information at the A.J.A.A. booth. Also offered are *Advertising Service*, a booklet outlining services performed by the Bureau for both advertisers and advertising agencies; and the Budget, offering 28 space plans for coverage in the entire group of publications.

STEPHENSON CORP.
Booth H-30

You will see in booth N-30 a new cabinet-type resuscitator-inhalator-aspirator-analgizer, excellent for emergency equipment in the hospital. The ambulance-type is shown in two sizes. The professional and physician's models are the smallest ever developed. You won't want to miss them.

B. J. STRASENBURGH CO.
Booth F-9

For the treatment of vaginitis due to Monilia albicans, Naprylate Suppositories Encapsulated, a form embodying the sodium and zinc salts of Caprylic Acid, are featured. Naprylate (Brand of Caprylic Compound) Powder in a new insufflator package, Naprylate Ointment, Sodium Caprylate Solution 20% are also shown. (Brand of Gamma Benzene Hexachloride—Lindane) are also exhibited.

STRONG CORD & COMPANY, INC.
Booth H-9

Ampins, automatic ampule injectors, for subcutaneous and intramuscular use—including Ampins of Penicillin—are demonstrated. Prescribed and ready for immediate use at all times, the penicillin Ampin (injection of 1 cc. of Crystalline Procaine Penicillin G, 300,000 units per cc., in oil with Aluminum Monostearate 2%) is completed in less than thirty seconds. Ampins eliminate the possibility of syringe transmitted hepatitis, and are easy to use. See Ampins demonstrated and try them yourself.

SWIFT & COMPANY
Booth F-7

The original all-meat baby foods, Swift's Meats for Babies and Juniors, are shown by Swift & Company. These high-protein, body-building foods are available in six varieties: beef, lamb, veal, pork, heart, and liver. The products are also widely used for adult special diets. Swift representatives will be glad to discuss with you the clinical research being conducted on Strained and Junior Meats.

TAMPAX INCORPORATED
Booth F-32

At booth F-32 Tampax presents, through colored photographs, transparencies and a series of anatomical models sculptured by A. Bakkke under the supervision of Robert Latou Dickinson, M.D. Also presented in colored transparencies are two anatomical charts—one entitled *Female Pelvic Organs*; and the other, *Female Reproductive Organs*—both of which were actually executed by Dr. Dickinson. Copies of these charts are available at the Tampax booth.

THE TECHNICON COMPANY
Booths A-21, 23

The Technicon Company exhibit the Isoplexis (Antiphrastenal) three-lead direct-writing Cardiograph; the new Tech-

(Continued on page 134)

to reduce the blinding pressure

'Furmethide' Iodide is the first cholinergic drug to be accepted by the A.M.A.'s Council on Pharmacy and Chemistry for use in glaucoma. It has been found exceptionally effective in reducing intra-ocular pressure in a wide range of glaucomatous conditions, both primary and secondary.

Salient Facts:

1 . . Ophthalmic Solution 'Furmethide' Iodide is non-irritating even on prolonged use and rarely, if ever, produces systemic reactions.

2 . . Development of tolerance to 'Furmethide' Iodide has not been encountered. Instances of sensitivity are rare.

3 . . Because of its unique resistance to cholinesterase, 'Furmethide' Iodide does not require the use of a cholinesterase inhibitor.

4 . . Its successful use has been particularly noteworthy in many cases in which other agents failed.

An important contribution to GLAUCOMA therapy

Ophthalmic Solution

THE TECHNICAL EXPOSITION

(Continued from page 132)

nicon Microscope Lamp; Lab-aid Slide Filing Cabinets; as well as their many other products of interest to the laboratory and research worker.

TESTAGAR & CO., INC.

Booths C-16 (8½)

Professional service representatives of Testagar & Co., Inc. welcome their friends to view many new modern developments in the pharmaceutical field shown at booth N-18. Literature on some of these recent developments are available. Vials and ampuls of Sodium Ascorbate, Testosterone Propionate, etc. are displayed. Your request for samples, literature, or technical information is invited.

CHARLES C THOMAS, PUBLISHER

Booth D-1

This meeting coincides with the publication of several important titles in the American Lecture Series, all of which are here displayed for your convenience. Physicians will have their first look at Callahan's *Surgery Of Repair Of The Eye And Adnexa*; Loch's *Pathology Of Bones And Joints*; Wilkins' *Diagnosis And Treatment Of Endocrine Disorders In Childhood And Adolescence*; Marple and Wright's *Thromboembolic Conditions And Their Treatment With Anticoagulants*. Prepublication orders are being taken for Yearbook *Of Gynaecology*, edited by Robert J. Lowrie, M.D.

TODAY'S HEALTH

Booth I-3

Ask the attendant to mail you a sample copy of TODAY'S HEALTH (Formerly HYGEIA), published by the American Medical Association. TODAY'S HEALTH on your reception room table can give the waiting patient a better appreciation of the progress of scientific medicine. It is designed to instill confidence in the patient and to develop greater cooperation between patient and physician.

THE TOLDEY COMPANY

Booth H-14

In five minutes you can see the up-to-date Little Toldey training method, shown in new color slides in booth H-14. A newly revised booklet *Training the Baby* is offered in any quantities you wish, and a special discount of 20% on orders placed now for Toldey Units including Toldey Specimen Collector for Urinalysis, and ComfySafe car seat.

THE TONI COMPANY

Booth F-34

Striking methods are used to portray the chemical control, physical control, performance control, and beauty clinic control of the Toni research program. Scientific papers on home permanent waving are available to interested doctors. Carol Douglas, Toni home beauty consultant, offers advice to doctors' wives on hair care. "Which Twin Has The Toni?" slogan is being demonstrated with live Toni Twins.

TOWER CO., INC.

Booth LL-34

UNITED FRUIT CO.

Booths H-30, 31

Visitors are invited to stop for a tasty nutritious banana milk shake served at the exhibit, booths M-30 and 31. Facts about bananas—their use in normal and therapeutic diets—comprise the United Fruit exhibit.

U. S. VITAMIN CORP.

Booth A-10

See the oil-in-water demonstration of natural vitamin A oil in water solution—a vitamin technical achievement pioneered by the U. S. Vitamin Corporation Research Laboratories. Also see and taste for yourself a new and different sodium-free salt substitute which actually tastes like salt, looks like salt and sprinkles like salt—a great boon to your patients on restricted sodium intake.

UNIVERSAL X-RAY PRODUCTS, INC.

Booth B-23

A new diagnostic X-ray — permitting fluoroscopy and radiography in both the horizontal and vertical positions—is featured at the Universal X-ray exhibit. This unit, available from 25 Ma. up to 100 Ma., offers the advantages of quality and maneuverability at an astonishingly low price. Equipment of interest includes a beautiful new 100 Ma. wall model control, occupying very little floor and wall space, yet incorporating all the advantages of a large and powerful control; and an orthodiagraphic unit, permitting true outline tracings of the heart, built onto a compact unit permitting fluoroscopy and radiography.

90% of doctors

who use Magni-Focuser say it is indispensable for removing foreign bodies

- Provides magnified, third-dimension vision—enabling you to tell how far a foreign body is embedded.
- Shuts out overhead and side glare and distraction.
- Allows free use of both hands.
- Assures greater accuracy.
- Normal vision can be resumed by just tilting the head.
- May be worn over eye-glasses.

Magni-Focuser will prove an invaluable aid in your examination room. Magnification, 2¼ times. Working focal point, 10 inches. Price, $8.50—black or white plastic. Order from your surgical supply house, or direct.

EBBOY PRODUCTS CO.
128 East 40th Street, New York 17, N.Y.

BUY U. S. SAVINGS BONDS

TURPIN - THOMS - ROENTGENPELVIMETER
$80.00 F. o. b. Augusta
Accurate Calculable Economical
Gives in simple 1 2 3 Rx Dm. AP and transverse diameters of inlet in C. M. At brim or in inlet. Small pieces of pipes if inlet is too small for fetal head. Write for reprint.
UNIVERSITY OF GEORGIA
Room 111 School of Medicine Augusta, Ga.

All AMA Members are invited to visit

BOOTH M-22

at the San Francisco Meeting.

WATERS CONLEY COMPANY
ROCHESTER, MINNESOTA

Manufacturers of

- The Kymographic Camera
- The Cardiotachometer
- Light Source, and other quality medical instruments

UNIVERSITY PRESSES

Booth C-42

See these new books on display: Burrows, *Biological Actions of Sex Hormones*; Schafer, *Pathology in General Surgery*; Altschule, *Physiology in Diseases of the Heart and Lungs*; Kidd, *Pathogenesis and Pathology of Viral Diseases*; Medawar, *Oncirophrenia*; Keys, *Biology of Human Starvation*; Jepsen, *Genetics, Paleontology and Evolution*; Goodrich, *Radiographic Atlas of Skeletal Development*; Essays in *Surgery Presented To Dr. W. E. Gaille*; Gordon, *A Symposium On Steroid Hormones*.

THE UPJOHN COMPANY

Booths E-18, 20

The Upjohn exhibit presents the anticoagulant family: Heparin, Depo-Heparin, and Dicumarol, with particular emphasis placed upon Depo-Heparin. When heparin is prepared in a gelatin vehicle (Depo-Heparin) and administered intramuscularly, markedly prolonged effects are obtained. A single injection of 1 cc. (200 mg.) of Depo-Heparin will prolong the blood coagulation time for about twenty-four hours.

VAN CAMP LABORATORIES

Booth H-12 (8½)

Dietetic Tuna—a tasty product low in fat, salt and cholesterin, rich in protein of high biological value—makes its debut here. It is offered as an excellent adjunct in special and reducing diets. Baby Food Strained Tuna, the first and only baby food made from fish, is also introduced. This important nutritional product, packaged without additional oil, is also recommended for soft, low-residual diets.

THE VANTA COMPANY

Booth H-10 (W½)

Vanta does it again! The big news in the infants' and children's underwear field is Vanta's Dipstab shirts. Vanishin shirts, and revolutionary new Vanta-breasted shirts. For over 30 years, Vanta has been a specialist in making scientifically constructed garments for infants and children. New product development and improvement are corner-stones of the business. Vanta invites you to see these new trends in children's underwear and to consult with nurse Sweeney at the booth.

VARICK PHARMACAL CO., INC.

Booth C-30

The makers of Digitaline Nativelle, the original digitoxin, have prepared an interesting and informative exhibit on new and broader concepts of treating the failing heart. Emphasis is given to the role of Digitaline Nativelle, a preparation of choice in congestive failure. Literature and samples of Digitaline Nativelle are available as well as copies of their recently published *Low Sodium Diet* brochure.

WALGREEN DRUG STORES

Booth C-10

You will find a hearty welcome at the Walgreen exhibit. Representatives on hand have many interesting things to tell you about their modern, up-to-the-minute Prescription Service. Last year alone, more than five million prescriptions were filled by Walgreen Pharmacists . . . convincing evidence of the confidence you and your patients have in Walgreen's Dependable Prescription Service.

WALKER VITAMIN PROD., INC.

Booth A-14

Lipotropic agents are displayed, including Council-approved Methionine 150 mg. capsules and Choline 500 mg. tablets. Literature concerning the application of these preparations in the treatment of hepatic disease associated with fatty infiltration is available. Other Council-accepted vitamin preparations including Covex (brand of ascorbic acid providing 5 mg. per drop) and Concentrated Oleo Vitamin A-D Drops are exhibited.

(Continued on page 136)

Make Your Hotel Reservation for the

A.M.A. San Francisco Session, June 26-30, 1950—NOW

If you plan to attend the A. M. A. Convention in San Francisco, it is urged that you make hotel reservations at once. As usual, all reservations are to be cleared through the local Hotel Committee. Please use the application blank below, mailing it immediately to Dr. William H. Rustad, Chairman of the American Medical Association Hotel Committee, Room 200, 61 Grove Street, San Francisco 2, Calif.

Each application must be accompanied by a separate deposit check of $5.00 per person or $10.00 per room, **made payable to the A. M. A. Hotel Committee. This deposit is to guarantee that the hotel will hold your reservation during this crowded period, and will be applied to your account.**

HOTEL RATES IN SAN FRANCISCO

Index No.	HOTEL	ADDRESS	PRICE
39	Alexander Hamilton	620 O'Farrell	$7.00-12.00
38	Bellevue	Geary & Taylor	7.00-17.00
73	Beverly-Plaza	340 Grant	3.50-11.00
16	Bruton	50 Turk	2.50- 5.00
107	Cadillac	360 Eddy	3.50- 6.00
89	Canterbury	440 Taylor	4.00-12.00
88	Canterbury	750 Sutter	4.00-24.00
58	Carlton	1075 Sutter	3.00- 6.00
70	Cartwright	736 Sutter	3.00- 6.00
83	Cecil	545 Post	3.50- 7.00
81	Chancellor	433 Powell	3.50- 6.00
40	Clift	Geary-Taylor	6.00-37.50
116	Cortez	231 Post	3.00
71	Coxet	1095 Bush	3.00- 7.50
110	Crillon	Mason & Ellis	3.00- 6.00
80	Devonshire	335 Stockton	4.00-10.00
66	Drake Wilshire	340 Stockton	3.00-10.00
60	El Cortez	360 Geary	3.00- 6.00
8	Embassy	810 Polk	3.00- 6.00
76	Fairmont	950 Mason	7.00-22.00
54	Fielding	386 Geary	3.00- 7.00
85	Franciscan	350 Geary	3.00- 6.00
84	Golden State	114 Powell	4.00-10.00
101	Governor	140 Turk	4.00- 6.00
82	Herbert	161 Powell	5.00- 6.00
61	King George	334 Mason	5.00- 6.00
59	Leamington	55 Fifth	3.00- 5.00
65	Mann	225 Powell	3.00- 5.00
77	Mark Hopkins	999 California	7.00-25.00
51	Maryland	499 Geary	3.00- 6.00
151	New Bolt	34 Turk	2.50- 5.00
23	Olympic	230 Eddy	3.00-12.00
17	Oxford	14 Turk	2.50- 5.00
57	Palace	Market & New Montgomery	6.00-27.00
87	Pickwick	85 Fifth	6.00- 7.00
52	Plaza	Post & Stockton	3.00- 6.00
20	Powell	17 Powell	4.00- 6.00
112	Richelieu	1098 Van Ness	4.00-10.00
13	Roosevelt	340 Jones	3.50- 4.50
127	St. Andrews	400 Post St.	3.00- 7.00
86	St. Francis	No rooms available—Reserved for members of the House of Delegates of the A. M. A.	
7	Senate	407 Turk St.	3.00- 6.00
50	Sheehan	170 Fifth St.	3.00- 6.00
5	Shen	Market-McAllister	1.50- 6.50
102	Stanford	730 Post	4.00- 6.00
62	Sir Francis Drake	450 Powell	6.00-21.00
113	Standford	340 O'Farrell	4.00- 6.00
63	Stewart	331 Geary	3.50-11.00
69	Stratford	242 Powell	4.00- 7.00
56	Sutter	Sutter & Kearny	4.00- 6.00
79	Terminal	70 Market	3.00- 5.00
78	Victoria	550 Bush	3.00- 3.50
2	Whitcomb	1231 Market	3.50-20.00
107	Whitton Pace	180 Eddy	3.00- 5.00
67	Y.M.C.A. Hotel	351 Turk	1.50- 3.75
130	York	500 Geary	3.00- 6.00

CUT OFF HERE

MAIL TO:
Dr. William H. Rustad, Chairman
A. M. A. Hotel Committee
Room 200, 61 Grove Street
San Francisco 2, California

SINGLE ROOMS ARE VERY SCARCE. WOULD YOU SHARE A TWIN BEDROOM WITH ANOTHER VISITOR?

Yes..... No.....

Please make reservations noted below:

First Choice Hotel.....
Second Choice Hotel.....
Third Choice Hotel.....
Fourth Choice Hotel.....
Fifth Choice Hotel.....

.....Single room (s) @.....
.....Double bedded room (s) @.....
.....Twin bedded room (s) @.....
.....Parlor-bedroom suite (s) @.....
.....Suite, 2 bedrooms with connecting bath @.....

Arriving June..... at.....A.M. .....P.M.
Departing June..... at.....A.M. .....P.M.

Be sure to specify departure date.

Reservations will be accepted for arrival dates for a week prior to the A. M. A. meeting.

LIST ALL OCCUPANTS — Amount of deposit enclosed.

..... $.....
..... $.....
..... $.....
..... $.....

Total Deposit

.....

Make check payable to A. M. A. Hotel Committee.

Mail Confirmation to: (Signed) .....
(Address) .....
(City) .....

(PLEASE ENCLOSE STAMPED SELF-ADDRESSED ENVELOPE.)

If you are a technical exhibitor, be sure to give name of firm and individuals to occupy room or rooms reserved.

MAIL THIS FORM TODAY to the San Francisco Local Committee on Hotels *Not to the A. M. A.*

THE TECHNICAL EXPOSITION

(Continued from page 734)

WALLACE & TIERNAN PROD., INC.

Booth D-14

Wallace & Tiernan Products, Inc. is featuring Desenex fungistatic ointment and powder; Sodium Sulfadecol, an effective Council-accepted sclerosing solution; Azochloramid for topical antisepsis; Monomestrol, a synthetic estrogenic preparation; and Salunedyn, a new treatment for tinea capitis in children. Representatives are on hand to welcome you and to discuss these pharmaceutical specialties.

THE WARNER COMPANY

Booth G-20

Step over to booth G-20 and enjoy a drink of delicious Ovaltine. Attendants will gladly answer any questions you may have about the composition, merits and usefulness of the product. Valuable, informative literature on nutrition is also available for distribution.

WILLIAM R. WARNER & CO., INC.

Booth H-16

This year's exhibit of William R. Warner & Co., Inc. has been particularly designed for the inquiring physician. A full complement of the Company's representatives are present to answer all queries on Warner's new product, Stiglutene Bromide—a cholinergic compound of low toxity for the prophylaxis and therapeusis of abdominal distention and/or urinary retention.

THE WARREN-TEED PRODUCTS CO.

Booths C-17, 19

The Warren-Teed Products Company feature a new display to be used for the first time at this 99th Annual Session. The Warren-Teed preparations which stand Council-accepted are displayed. Professional service representatives at the booth will be pleased to assist registrants in any way possible.

WATERS CONLEY CO.

Booth H-22

The Waters Conley Kymographic Recording Camera, shown here, offers new possibilities for recording photographically multiple scientific and physiological phenomena. The potentialities of this instrument are enhanced by the wide film capacity which provides sufficient room for the many recordings required in complex tests. The Waters Conley Cardiotachometer, a method of continuously indicating instantaneous heart rate, will also merit your thoughtful attention.

WELCH ALLYN, INC.

Booth B-3

WESTINGHOUSE ELECTRIC CORP.

Booths I-10, 12, 14, 16

WESTWOOD PHARMACEUTICALS

Booth A-10

The new Lowila Cake is presented for the first time at the Westwood booth. Samples of this improved complete detergent cake are available to physicians. Why not try it in your hotel bathroom? Lathers in the hardest water, even sea water!

WHIRLPOOL CARRIAGE, INC.

Booth H-21

WHITE LABORATORIES, INC.

Booths C-32, 40, 42, E-12

Gitaligin—a digitalis preparation of choice—is displayed at booth E-12. Courteous medical service representatives will appreciate the opportunity to discuss with you the clinical background and therapeutic merit of this and other outstanding White's products. You are cordially invited to register at booth C-32 for the lucky number drawing for a new Cadillac Club Coupe to be given away by White Laboratories. Eligibility rules for this drawing are explained at White's registration booth. The car is on display at booths C-40 and C-42.

THE WILLIAMS & WILKINS CO.

Booth B-4

Celebrating its 25th Anniversary, this company is issuing a special catalog for the occasion. Big news is the publication of the brand new 5th edition of Best & Taylor's *The Physiological Basis of Medical Practice*. Among other new books to be displayed are: *Tumors of the Head and Neck*, by Ward and Hendrick; *Soviet Psychiatry*, by Wortis; *Steroid Hormone in Tumors*, by Lipschutz; *Amputation Prosthetic Service*, by Daniel; *Surgical Treatment of Facial Injuries*, by Kazanjian and Converse; *Essential Urology*, by Colby; *Hearing Tests and Hearing Instruments*, by Watson & Tolan. All of the periodicals published by the Company are on display, including all sections of *Excerpta Medica*.

Sedgwick Residence Elevators and Stair-Travelors are designed to eliminate the danger of needless over-exertion caused by stair climbing. Safe, simple and dependable—easy and inexpensive to install—can be operated on ordinary house current at low cost. Nationwide representation.

Write for Illustrated Booklet AM-6

Sedgwick MACHINE WORKS
245 West 16th St., New York

WINTHROP-STEARNS, INC.

Booths D-16 (E-½), D-18, 20

Winthrop-Stearns, Inc. features large scale plastic, rubber and plaster models by Leon Schlossberg illustrating three subjects: brain with cerebral aneurysm and tumor in the region of the pheniodal ridge displacing the middle cerebral vessels; technique of Pollet in the Blalock-Taussig operation; pregnant woman at term. The brain and heart models are correlated with roentgen visualizations of similar pathology by means of Diodrast 35 and 70 per cent solutions. Representatives will be glad to discuss the latest therapeutic contributions of Winthrop-Stearns including Mitibis, a new, well tolerated and potent amebacide.

WISCONSIN ALUMNI RESEARCH FOUND.

Booth H-20

The action of Dicumarol under varying conditions . . . effect of drugs which interfere with its action . . . are shown by charts in the Wisconsin Alumni Research Foundation exhibit. Experimental and clinical data on the anticoagulants are featured.

WOODWARD MED. PERSONNEL BUREAU

Booth I-15

Ann Woodward of the Woodward Medical Personnel Bureau will be pleased to discuss your personnel and placement problems at booth I-15. If it's a question of employment—immediate or impending—you are cordially invited to talk it over with her in San Francisco.

WYETH, INCORPORATED

Booths D-12, 14, 16 (W)

Lights concealed within a twin-table type of display fixture illuminate the Wyeth booth, featuring their well-known products: S-M-A Infant Food; Terpidrin (dihydrotin); Amphojel (aluminum gel); Mesnine (di-methionine); Petrogalar; and Neobetrimine. The familiar Wyeth blue and buff packages stand in crisp contrast against the gleaming white of the display stand.

THE YEAR BOOK PUBLISHERS, INC.

Booth A-7

A new action color display offers an interesting pictorial portrayal of how Year Books are compiled, edited and annotated. Available for inspection are the Book's complete line of *Practical Medicine Year Books, General Practice Manuals, Monographs and Texts*. Featured new books and new editions include Holbrook's *Manual of Rheumatic Diseases*; Sarnat & Schour's *Oral and Facial Cancer*; Cheney's *Medical Management of G-I Disorders*; Heilander's *Office Treatment of the Nose, Throat and Ear*; de Palmieri's *X-Ray Diagnosis of the Arthropathies*; Glasser's *Medical Physics, Vol. II*, and Comroe's *Method's in Medical Research, Vol. II*.

ZENITH RADIO CORP.

Booth H-18

At booth N-18 the Zenith Radio Corporation exhibits the Miniature air and bone conduction hearing aids produced by this manufacturer of quality radios and television sets. Zenith representatives will be pleased to explain how any physician can test one of these instruments for 30 days without cost or obligation to him or his hard-of-hearing patients.

ZIMMER MFG. COMPANY

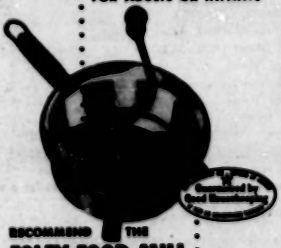
Booth D-29

Zimmer Manufacturing Company exhibits many desirable items in its extensive line of fracture equipment. Special attention is called to the new, improved form-fitting rib belt; Newman ingrown toenail plate; corrugated off-set walking iron; Lane bone saw with Bishop oscillation; Kuntscher intramedullary outfit; bone plates and improved bone screws; consolidated blade plate; Y-type osteotomy plate; pin cutter; Ilizarov stapling outfit; metal stimulator support, and improved two-speed drill.

WHEN YOU PRESCRIBE

SMOOTH DIETS

FOR ADULTS OR INFANTS



RECOMMEND THE

FOLEY FOOD MILL

Quickly puree cooked fruits and vegetables with a FOLEY FOOD MILL. Strains and separates skins, seeds, fibres. Try one. You'll recommend it for baby . . . or for adult smooth diets. 2-qt. household size, $1.98. 1-qt. baby size, $1.69. See professional offer below. (One only)

EASY PREPARATION FOR MASHED POTATOES, SOUPS, VEGETABLES, DESSERTS

AT HARDWARE, DEPT., CHAIN STORES

PROFESSIONAL OFFER

FOLEY MFG. CO., 2315 S. E. 23d St., Minneapolis, Minn.

Enclosed is $1.25 for 1 Foley Food Mill.

☐ HOUSEHOLD SIZE ☐ BABY SIZE

WRITE NAME AND ADDRESS PLAINLY IN MARGIN

Questions You Ask...
Answers That Help...

VOLUME III *of*

QUESTIONS AND ANSWERS

only $3.00

Direct from THE JOURNAL comes this new volume of "Selected Questions and Answers." Its 517 pages contain concise, authoritative discussions of current problems in more than 43 fields of medicine.

Written by experts in answer to questions appearing in THE JOURNAL'S "Queries & Minor Notes" Column, this book gives you recent information on the diagnosis and treatment of difficult cases and will serve as your consultant on many other problems.

Busy doctors will find it a handy, time-saving reference book, its answers prepared by recognized specialists in their fields. You will want this volume in your daily practice.

A few of the many topics to be found in "Selected Questions and Answers" are:

1. Blood Tests and Blood Diseases
2. Industrial Poisons and Poisoning
3. Cancer
4. Nervous System
5. Skin Conditions
6. Tropical and Parasitic Diseases
7. Virus Diseases
8. Tuberculosis
9. Musculoskeletal System
10. Hay Fever, Asthma and Allergy

NOW AVAILABLE

MAIL THIS COUPON NOW
RESERVATION CERTIFICATE

AMERICAN MEDICAL ASSOCIATION
535 NORTH DEARBORN, CHICAGO 10, ILLINOIS

Reserve a copy of the new Questions & Answers, Volume III in my name. I enclose remittance of $3.00.

I may return my copy within 10 days of receipt for full refund if I decide not to keep it.

NAME..... ADDRESS.....

CITY..... ZONE NO. (If any)..... STATE.....

You'll want your patients to know about these Mennen favorites

It jingles!—*Mennen Baby Powder with the fascinating built-in Rattle.* No more squirming at diaper time. Snow-white, scented powder, borated for added protection against chafing, heat rash.

Mothers' favorite in scent tests—*New Mennen Baby Oil with Lanolin.* Non-antiseptic, crystal-clear. Helps prevent urine irritation, cradle cap, diaper rash, friction soreness.

mennen

baby products

COPYRIGHT 1950, THE MENNEN COMPANY. BATTLE TOP PATENT PENDING

50 YEARS

Luzier's Fine Cosmetics and Perfumes

Our preparations will be exhibited in Booth No. I-5 at the San Francisco Session, June 26-30.

We look forward with pleasure to greeting those of you who throughout the past many years have visited our exhibits and also to making many new acquaintances.

LUZIER'S, INC.

Kansas City 3, Missouri

The Medical Bureau

DUNNICK LARSON
DIRECTOR

PALMOLIVE BUILDING CHICAGO

It will be good to see you again when the medical profession starts drifting toward San Francisco in late June. We'll look forward to meeting you in booth number A-3.

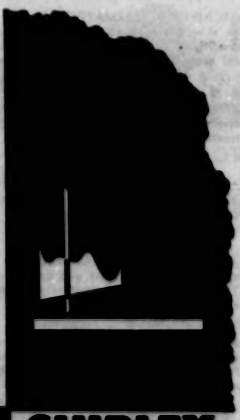
Those of you who have been waiting for an opportune time to select an assistant for your practice, to appoint a specialist as department head in your hospital, to appraise the men available for group connections . . . you will be pleased with the qualifications of the men we are able to recommend to you.

As always, our conferences will be a matter of strictest confidence, so that no embarrassment will result should tentative plans fail to carry through. The biographies we shall have with us for your consideration will be presented only with the full consent of the men and women concerned. We have that permission if the opportunity you offer is in line with their own plans.

Incidentally, if any physician attending the convention is planning to re-locate, we suggest he get in touch with us immediately that we may arrange convention-time interviews.

YOUR BEST HOTEL VALUE IN DENVER

TWO PERSONS FOR THE PRICE OF ONE



400 ROOMS

$1.50

SHIRLEY SAVOY HOTEL

17TH AT BROADWAY

DENVER, COLORADO

SEE THEM AT OUR BOOTH F-32
A.M.A. Convention, San Francisco, June 26-30

CAMBRIDGE
DIAGNOSTIC INSTRUMENTS

ELECTROCARDIOGRAPHS

Cambridge Mobile Model and "Simpli-Trol" Model Electrocardiographs with String Galvanometer, record minute heart action-currents directly without external amplification. They assure the hospital of *universally accepted records, fundamental accuracy, lifetime dependability and minimum maintenance.*

MOBILE MODEL *(at right)*

Completely answers the demands of the busy hospital. Sturdy, easy to operate, can be moved from ward to ward. Meets the needs of the most exacting Cardiologist. For large or small Hospital, Research Laboratory, Clinic, or Private Office.

"SIMPLI-TROL" PORTABLE

Light in weight and simple to operate, without sacrifice of fundamental accuracy or completeness of function. Entire equipment in one mahogany case, 8" x 19" x 10"; weight 30 pounds.

ELECTROCARDIOGRAPH-STETHOGRAPH

Any Cambridge String Galvanometer Electrocardiograph can be equipped for heart sound recording. Electrocardiogram and stethogram are obtainable separately or simultaneously on one record. All models may also be provided with pulse recorder.

NEW! "SIMPLI-SCRIBE" DIRECT WRITER

This portable Electrocardiograph meets the minimum specifications of the A.M.A. A most convenient supplementary instrument for gross pathology, screening purposes, etc. for the Doctor or hospital having a String Galvanometer Electrocardiograph available for checking purposes. Size 10¼" x 10¼" x 11"; weight 28 pounds.

CAMBRIDGE PLETHYSMOGRAPH

Records variations in volume of human extremities as determined by the state of fullness of the blood vessels. Tracings are standardized, quantitative, and reproducible.

CAMBRIDGE ELECTROKYMOGRAPH

Produces a continuous record of heart border motion at chosen points along the cardiac silhouette. Makes large, clear, electrocardiograph-type tracings on photographic paper. Can be attached to screen of any standard fluoroscope.

AMPLIFYING STETHOSCOPE

A pocket-size, light-weight instrument for amplifying heart sounds and murmurs. Used like a regular stethoscope. Low-gain and High-gain instruments for normal and hard-of-hearing physicians.

RESEARCH pH METER

For biological and research work. Sensitive to .005 pH, readings reproducible to .01 pH. Operates from any A. C. outlet, portable, electronray null indicator. Only very small samples needed.

Send for Descriptive Literature

CAMBRIDGE INSTRUMENT CO., INC.

Pioneer Manufacturers of the Electrocardiograph

3722 Grand Central Terminal, New York 17

CLEVELAND 12, OHIO 1720 Euclid Avenue
PHILADELPHIA 4, PA. 125 South 24th St.
CHICAGO 11, ILL. 2420 West Madison St.

. . . for patients suffering from morning backache due to sleeping on inferior mattress or an improperly fitted bedboard. . . .

*Sealy's Accepted**
ORTHOPEDIC FIRM-O-REST
Innerspring Mattress

Keen interest shown by so many of the profession at the Atlantic City convention, is gratifying confirmation of nation-wide acceptance that has made Sealy's perfected Orthopedic the most widely used mattress of its type in the world.

* Accepted for advertising in the Journal of the American Medical Association. Sealy's Orthopedic gives natural, non-sag support to the patient's back. It is correctly firm yet completely comfortable. It is the result of scientifically conducted research by technically trained men. And it is giving effective relief, in thousands of cases, to patients whose morning backaches are due to sleeping on flabby, inferior mattresses or make-shift bedboards. You may suggest the Sealy Orthopedic with confidence, knowing that it is the most advanced product of the Sealy "Sleep Clinic" that is 48 years young.

Sealy

RESTED ON A SEALY IS BEST RESTED ON A CLOUD

For Every Doctor . .

A. M. A. SPECIAL JOURNALS

Usable facts

from swiftly moving progress in your special field come to you through the A.M.A. Special Journals. In their pages, qualified specialists bring practical experience and research findings to you.

ARCHIVES OF INDUSTRIAL HYGIENE & OCCUPATIONAL MEDICINE • Reports of the continuing and important developments in the field of medicine in industry. Original articles, abstracts, and reviews. *$5.00 yearly. Canada, $5.40. Foreign, $9.00*

ARCHIVES OF SURGERY • Studies of operative conditions and end-results • anesthesia • infection • preoperative and postoperative care • case reports • common problems of surgeon and general physician. *$14.00 yearly. Canada, $14.40. Foreign, $15.50.*

ARCHIVES OF OTOLARYNGOLOGY • Tests and weighs new methods of treatment • reports unusual cases • analyzes obstinate problems • reflects advanced thought and experimental action. *$12.00 yearly. Canada, $12.40. Foreign, $13.00.*

ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY • Information on skin diseases and syphilis. Cutaneous manifestations of systemic conditions, dermatoses from various sources, fungous infections. Clinical notes, abstracts, news and comment. *$12.00 yearly. Canada, $12.40. Foreign, $13.50.*

AMERICAN JOURNAL OF DISEASES OF CHILDREN • Stimulating original articles, case reports, abstracts and reviews on care and treatment of infants and children. *$12.00 yearly. Canada, $12.40. Foreign, $13.50.*

ARCHIVES OF NEUROLOGY AND PSYCHIATRY • Foremost researchists and practitioners contribute current viewpoints, therapies, explorations of treatment, and correlative pathological studies. *$12.00 yearly. Canada, $12.40. Foreign, $13.50.*

ARCHIVES OF INTERNAL MEDICINE • The nature of disease, new approaches to treatment and diagnosis in general or special practice. This journal offers a constantly expanding library of practical information. *$10.00 yearly. Canada, $10.40. Foreign, $11.00.*

ARCHIVES OF PATHOLOGY • Exhaustive studies on the course of disease • new laboratory methods and instruments, discoveries made through chemical and histological research • classification and comment • book reviews. *$8.00 yearly. Canada, $8.40. Foreign, $9.00.*

ARCHIVES OF OPHTHALMOLOGY • The eye and its relation to general health • technics and corrections • chemotherapy • how vitamins affect vision • eyesight today. *$12.00 yearly. Canada, $12.40. Foreign, $13.00.*

Each journal is published monthly.. Page size 6¾" x 10¼". Well Illustrated. Send in your order with remittance today.

AMERICAN MEDICAL ASSOCIATION
535 NORTH DEARBORN STREET • CHICAGO 10

LACTOGEN + WATER = FORMULA

1 level tablespoon (40 Cals.) | 2 fl. ozs. | 2 fl. ozs. (20 Cals. per fl. oz.)

LACTOGEN®

CLOSELY APPROXIMATES BREAST MILK

Advertised to Medical Profession only.

Double Seal

REG. U. S. PAT. OFF.

ADHESIVE PLASTER

SUPERIOR QUALITY COMPETITIVELY PRICED

Double Seal Adhesives—every Double Seal product is the result of painstaking research and careful development to a point of perfection where conformity to highest medical standards and advanced scientific principles are assured. Constant vigilance, supervision and testing activities maintain Double Seal precision standards.

Made with pure para rubber, Double Seal Adhesives possess unusual resistance to heat—stay fresh longer—hold their firmness—will not stretch—tear smoothly.

Send for our complete catalog of entire Double Seal precision quality line which also includes:

Elastic Bandages . . . Moleskin . . . Kurotex . . . Tubegauz . . . Gauze Bandages . . . Cottons . . . Elastic All-Cotton Bandages . . . Adhesive Foam . . . Lambs Wool.

WRITE NOW FOR CATALOG

Surgical Supply Division

THE SCHOLL MFG. CO., Inc.

213 W. Schiller Street, Chicago 10, Illinois

45 W. 14th Street, New York 11, N. Y.

Visit Double Seal Booth #24 American Medical Assoc. Convention in San Francisco

Schieffelin
BENZESTROL
(2, 4-di (p-hydroxyphenyl)-3-ethyl hexane)

CHOICE OF DOSAGE ROUTES VARIED POTENCIES

Clinical observations confirm the value of Schieffelin BENZESTROL in securing estrogenic therapy benefits while reducing the likelihood of untoward side-effects.

Schieffelin & Co.
Pharmaceutical and Research Laboratories
30 Cooper Square • New York 3, N.Y.

Samples and literature on request.

Schieffelin BENZESTROL
Elixir—15 mg. per fluid ounce—pint bottles.

Oral: Schieffelin BENZESTROL
tablets—0.5, 1.0 mg. 100's—1000's.
2.0, 5.0 mg. 50's—100's—1000's.

Local: Schieffelin BENZESTROL
Vaginal Tablets—0.5 mg.—100's.

Intramuscular Schieffelin BENZESTROL
Solution—5.0 mg. per cc.—10 cc. vials.

Baby Starts Right - Grows Right, in
WALKIE-TALKIE
Lightweights

Proper foot care should start with Baby's first steps. These shoes are built particularly to guide the normal growth of children's feet in their earliest walking days. Good fitting features, excellent workmanship, top grade materials go into the making of each pair

EXTRA WIDE ROOM
So Foot Rests Normally and Naturally.

FIRM COUNTER
Follows Shape of Baby's Heel and Holds It in Snug Position Without Being Squeezed.

PLENTY OF ROOM
For Comfort and Baby's Normal Foot Growth.

FLEXIBLE SOLES
Light in weight—but Sturdy for Baby's First Steps.

SMOOTH INSIDE
Tongue and Plug One Piece.
No Vamp Seam or Quarter.

Curtis, Stephens, Embry Co., Inc.
READING, PENNSYLVANIA
MAKERS OF Pre-tah-dy • MODERN AGE • OFFICIAL GIRL SCOUT SHOES

GRADWOHL LABORATORIES

We Invite You to Visit Our

BOOTH No. N-8

at the

SAN FRANCISCO SESSION

of the A.M.A.

for

FULL LITERATURE ON

BLOOD GROUPING SERA
Anti-A, Anti-B, Absorbed Anti-A,
Anti-Rh, Anti-Human Precipitating,
Anti-M, Anti-N

PAPANICOLAOU STAINS FOR CYTOLOGICAL DIAGNOSIS OF CANCER

TRAINING SCHOOL FOR LABORATORY TECHNICIANS

"LABORATORY DIGEST," Monthly Magazine of Laboratory Progress

"CLINICAL LABORATORY METHOD AND DIAGNOSIS"
The "BIBLE" for Laboratory Workers and Practitioners of Medicine
4th Edition, 3 Volumes
Mosby Company, Publishers

If you cannot come to San Francisco, write for literature.

GRADWOHL LABORATORIES
3514 Lucas Avenue St. Louis 3, Missouri
R. B. H. Gradwohl, M.D., Director

COLLINS RESPIRATION APPARATUS

DRINKER-COLLINS DUPLEX RESPIRATOR

This two-in-one "Iron Lung" will treat two children in an emergency and is ideal for a single large adult because of its extra working ports (5 in all) and its extra large windows. Its precision-engineered bellows power plant provides comfortable, effective artificial respiration for days without end. A complete "Iron Lung," it's available with aspirator, alarm, resuscitator and other accessories.

BENEDICT-ROTH METABOLISM APPARATUS

The acknowledged leader in the oxi spirometer field. There are over 30 years experience back of each Benedict-Roth. Outstanding features are precision-calibrated oxygen bell, large recording charts, flutter valves for effortless breathing, and the new Collins calculator that computes basal metabolic rates almost automatically.

COLLINS RESPIROMETER

The latest Collins development for the study of respiratory function. The Respirometer simplifies the detection and treatment of pulmonary disease. It detects respiratory neurosis, pulmonary emphysema, bronchial asthma, malingering, surgical limitations and therapeutic values. It is perfect for obtaining B.M.R.'s as well.

COLLINS METABOLEX (Waterless) METABOLISM APPARATUS

Here's a low-priced waterless metabolism tester that is designed to give just as good results as our Benedict-Roth. In fact, it's designed on the same principles except that it is waterless. It will give years of dependable trouble-free service. Its operation is simple. It's natural-breathing and its computations are almost automatic with the Collins slide rule Calculator.

COLLINS OXYFLO (Open Top) OXYGEN TENT

Light in weight, convenient to store, simple and inexpensive to operate, the Collins Oxyflo is the choice of large and small hospitals. It is noiseless and silent, and maintains a cool 35%-60% concentration on a low liter flow. A cover for 100% concentrations is provided.

If you can't go—write for literature

WARREN E. COLLINS, Inc.
Specialists in Respiration Apparatus
333 Huntington Ave., BOSTON 15, MASS.

See It in San Francisco

"The Well-Tailored Bookshelf"

To save time and space in your office ask about sending us your back copies of Journal A.M.A. for

Handsome STANDARD Binding at a Reasonable STANDARD Price

(Authorized by the Publishers) *(Per Volume of 17 or 18 Issues—$3.00)*

IN the pleasant office atmosphere of Booth H-26, you will observe at a glance what can be accomplished in your own office or reception room by the use of Authorized Bindings for your medical journals. Compact and quickly identified in these washable buckram bindings with gold-stamped titles, dates and your own name on the cover, the value of your periodical literature is at once increased and permanently preserved.

NOTE particularly when you visit Booth H-26, the immediate and unmistakable impression of good taste and office organization created by "The Well-Tailored Bookshelf."

THE BOOK SHOP BINDERY

Distinctive Periodical Bindings Since 1895

308 WEST RANDOLPH STREET CHICAGO 6, ILL.

BAG PACKED, DOCTOR?

When you travel—business or pleasure—make a note now to stay at a Statler.

Statler Hotels combine comfortable beds in attractive rooms with wonderful food and efficient service to make any trip pleasant and relaxing. Add to this Statler's famous old-fashioned hospitality and you have the perfect prescription for travelers.

Statler Hotels NEW YORK (Formerly Hotel Pennsylvania) BOSTON • BUFFALO • CLEVELAND DETROIT • ST. LOUIS • WASHINGTON PITTSBURGH (Hotel William Penn)

SECLUSION Est. 1900 *MATERNITY*

FAIRMOUNT HOSPITAL

Private sanitarium with certified obstetrician in charge. All adoptions arranged through reputable court. Early entrance advised.

Write for Information

MRS. EVA THOMSON

1414 E. 27th St. Kansas City, Mo.

Fireproof Bldg.

CRAGMOR SANATORIUM

For tuberculosis and diseases of the Chest. Situated a few miles outside of Colorado Springs in the heart of the Rockies. Provides for such patients as additional apartment with a private attending physician. Ideal climatic conditions. Rates on request.

For detailed information, address Henry W. Maly, M.D. Director

Colorado Springs, Colo.

Dr. Harbel's **BLOOD CELL CALCULATOR**

No more tedious computations. Five keys for five counts of white blood and 2 similar keys for the following differentials: Eosin, Neutrophil, Basophil, Lymphocyte, Monocyte. Counts, calculations and differentials up to 100 in one minute without removing eyes from microscope. For differential counts, hemocytometers, hemoglobin pipettes, etc., supply. Price $45.00. Write for descriptive booklet.

THE HARBEL BLOOD CALCULATOR COMPANY, 2027 So. Halsted St. B-3, Chicago 8, Ill.

The Willows Maternity Sanitarium, Inc.

Est. 1900

Superior services for expectant unmarried mothers. Patients accepted any time. Early entrance advised. All adoptions arranged through the Juvenile Court. Rates reasonable and adapted to patient's needs.

WRITE FOR CATALOG

2027 Holmes Street, Kansas City 8, Missouri

GREENS' EYE HOSPITAL

Completely equipped for the surgical and medical care of all cases pertaining to ophthalmology and otolaryngology.

Address all Communications to M. Hamilton, Superintendent

BUSH ST. AT OCTAVIA • SAN FRANCISCO • WEst 4300

The New York Polyclinic

MEDICAL SCHOOL AND HOSPITAL (Organized 1881)

(The Pioneer Post-Graduate Medical Institution in America)

RADIOLOGY

A comprehensive review of the physics and higher mathematics involved, film interpretation, all standard general roentgen diagnostic procedures, research of specialized and rare of roentgen therapy, both x-ray and radium, standard and special fluoroscopic procedures. A review of dermatological lesions and tumors susceptible to roentgen therapy is given, together with methods and dosage calculations of treatments. Special attention is given to the newer diagnostic methods employed with the assistance of contrast media, such as bronchography with Lipiodol, pyelography, visualization of cardiac chambers, part-recal installations and myelography. Discussions covering roentgen departmental management are also included.

OBSTETRICS and GYNECOLOGY

A full time course. In Obstetrics: lectures; prenatal clinics; witnessing normal and operative deliveries; operative obstetrics (manikin). In Gynecology: lectures; touch clinics; witnessing operations; examination of patients pre-operatively; follow-up in wards post-operatively. Obstetrical and gynecological pathology. Anesthesia. Attendance at conferences in obstetrics and gynecology. Operative gynecology on the cadaver.

For information address **MEDICAL EXECUTIVE OFFICER: 345 West 50th St., NEW YORK 19**

UNIVERSITY OF PENNSYLVANIA

GRADUATE SCHOOL OF MEDICINE

Announces the following specialization courses to be offered during the academic year 1950-1951; these full-time courses may lead to candidacy for the Degree of Master of Medical Science:

Internal Medicine	Otolaryngology
Pediatrics	Physical Medicine
Neurology-Psychiatry	Anesthesiology
Dermatology-Syphilology	Basic Medical Sciences
Radiology	—
Surgery	Oral Surgery
Gynecology-Obstetrics	Orthodontics
Orthopedics	Oral Medicine-Periodontics
Urology	Oral Roentgenology
Ophthalmology	Prosthetics

The courses commence October 2, 1950, lasting 8 to 12 months. There are also several special short courses available, including a new one-week course in Current Advances in Medicine and Surgery, to be held, September 25th through the 29th, 1950, and annually thereafter. Full information may be obtained from the Dean, Graduate School of Medicine, University of Pennsylvania, Philadelphia 4, Pennsylvania.

HARVARD MEDICAL SCHOOL

Courses for Graduates

TREATMENT OF FRACTURES AND OTHER TRAUMATIC CONDITIONS

October 30-November 4, 1950

Week Following Boston Meeting of the American College of Surgeons

By Dr. Edwin F. Cave and Associates at the Massachusetts General Hospital

This course will deal primarily with the treatment of fractures, but the management of many other traumatic conditions will be presented—namely, the physiology of bone repair, soft tissue injuries, surgical shock, bone metabolism, burns, hand surgery, plastic surgery, vascular injuries, chest injuries, trauma to the central nervous system, bone tumors; anesthesia in traumatic conditions; and the use and misuse of x-rays in the handling of fractures.

Tuition—$150. **Attendance Limited to 100 Students**

Apply to Assistant Dean, Courses for Graduates
Harvard Medical School, Boston 15, Massachusetts

BELLEVUE PLACE

for

Nervous and Mental Diseases

EDWARD Bunt, M. D., Medical Director

BATAVIA, ILLINOIS PHONE: BATAVIA 1020

THE UNIVERSITY OF SOUTHERN CALIFORNIA

School of Medicine

Announces Postgraduate Courses

830—CLINICAL REVIEW OF INTERNAL MEDICINE: Tuition $200.00
12 weeks, full-time, from September 11, 1950 to December 1, 1950

831—INTERNAL MEDICINE: Tuition $750.00
9 months, full-time, from December 4, 1950 to September, 1951
Course 830 is prerequisite to 831 except by special arrangement.

832—CARDIOLOGY AND VASCULAR DISEASE: Tuition $1000.00
12 months, full-time, from September 11, 1950 to September, 1951

844—GASTROENTEROLOGY: Tuition $750.00
9 months, full-time, from December 4, 1950 to September, 1951
Course 830 is prerequisite to 844 except by special arrangement. Course 830 plus 831, and Course 832 are accredited for certification by the American Board. Tuition for veterans may be covered in part or full by the "GI" Bill.

For further information and application write to:
Edward C. Rossiter, Jr., M.D., Director
P. O. Box 168, Los Angeles County General Hospital
1200 North State Street, Los Angeles 33, California

THE CHICAGO MATERNITY CENTER

offers Six-Month Assistant-Residency in Obstetrics to graduates of Class A medical schools who have completed a one-year general internship.

AMERICAN BOARD CREDIT

Room, board and $50.00 monthly allowance.

1200 Newberry Avenue Chicago 6, Illinois

MICHAEL REESE HOSPITAL POSTGRADUATE SCHOOL

RECENT ADVANCES IN PEDIATRICS

I. The Full-Term & Premature Infant in Health & Disease
II. Diagnostic & Therapeutic Measures in General Pediatrics
by Members of the Department of Pediatrics

May 22 to May 27, 1950 (Full-Time) Tuition: $50.00 per section
The course is divided into two sections—1 week each. Students may register for either or both sections.

HEMATOLOGIC DIAGNOSIS

By Karl Singer, M.D., Director of Hematologic Research
July 24 to August 5, 1950 Tuition: $100.00
Instruction in actual reading of slides—normal and pathological specimens—Peripheral blood and bone marrow. Individual slide collection provided and may be retained by student. Review of present status of Hematology.

SIZE OF CLASSES LIMITED. For further information, address: Dr. Samuel Seskin, Dean, 29th St. & Ellis Ave., Chicago 16, Ill.

No medical war whoops from Old Gold

...We're Tobacco Men not Medicine Men!

Nor for all the wampum in North America would we join the chorus of "medical" claims for cigarettes. For nearly 200 years our sole profession has been curing just one thing—the world's best tobacco. We believe that for top smoking enjoyment, your most convincing medicine is—just light up and enjoy an Old Gold. No friendlier flavor . . . no mellower mildness . . . no more deep-down smoking pleasure—that's your Old Gold!

For a Treat instead of a Treatment: treat yourself to **OLD GOLDS**

For asthma . . .

Isuprel

well known . . .

Isuprel

highly regarded . . .

Isuprel

Month after month publications describe the successful use of Isuprel in controlling bronchial spasm and edema. In modern medical practice Isuprel by nebulization or sublingual tablets has, in a comparatively short time, won wide acceptance.

Because of this deserved reputation — more than thirty favorable references in the literature — specialists and general practitioners depend increasingly on Isuprel. "It acts as quickly as adrenalin [by injection] and can be taken easily regardless of circumstances. It can therefore to a great extent take the place of adrenalin [epinephrine] in asthma."[1]

Inhaled as a fine mist, Isuprel dosage is accurately gaged by patients. This is an advantage in providing rapid relief with a *minimum* of side effects.

1. *Hawkinson, H.: Lancet, 254: 457, May 1, 1948.*

Isuprel® HYDROCHLORIDE

brand of isopropylarterenol hydrochloride

Isuprel Solution 1:200 for oral inhalation by nebulizer in vials of 10 cc. and 30 cc.
Isuprel Sublingual Tablets 10 mg. and 15 mg. in bottles of 20 and 500.

Winthrop-Stearns INC. • NEW YORK, N. Y.

Isuprel, trademark reg. U. S. & Canada

PABENA . . . precooked oatmeal specified by physicians

PABENA* is oatmeal, and has the rich, full oatmeal flavor. Its nutritional qualities and its vitamin and mineral content are similar to those of Pablum.

PABENA is valuable for infants and children who are sensitive to wheat, and is an ideal first solid food.

PABENA, like all Mead's products, is advertised only to the medical profession.

*Trademark Registered

V 14
1950